DOCUMENT RESUME

ED 322 221 TM 015 507

AUTHOR	Hafner, Anne; And Others
TITLE	A Profile of the American Eighth Grader: NELS:88 Student Descriptive Summary. National Educational Longitudinal Study of 1988.
INSTITUTION	National Center for Education Statistics (ED), Washington, DC.
REPORT NO	NCES-90-458
PUB DATE	Jun 90
NOTE	166p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.
PUB TYPE	Statistical Data (110) -- Reports - Research/Technical (143)
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	*Academic Achievement; Cohort Analysis; Educational Environment; Elementary Education; *Elementary School Students; *Grade 8; High Risk Students; Longitudinal Studies; Mathematics Achievement; National Programs; *National Surveys; Profiles; Reading Achievement; Safety; *School Statistics; Student Attitudes; *Student Characteristics; Student Problems
IDENTIFIERS	*National Education Longitudinal Study 1988

ABSTRACT

Descriptive statistics and associated analysis on American eighth graders are presented based on data from the 1988 National Education Longitudinal Study. The study will be repeated with the same cohort at 2-year intervals. Study variables cover attitudes, school performance, and activities of the eighth-grade students. In addition to direct student data, the study design incorporates data from students' school principals, parents, and teachers to identify additional factors that affect student achievement. In addition to a general statistical profile of the target population, statistics and accompanying analyses cover mathematics and reading performance, at-risk issues, school safety and climate, and high school and college plans. Focus is on circumstances under which children flourish and succeed. The study included a clustered, stratified national probability sample of about 800 public and 200 private schools. Almost 25,000 students participated in the base-year study. The sample represents the nation's eighth-grade population, totalling about 3 million eighth-graders in over 38,000 school in the spring of 1988. Results reveal that the American eighth-grade population is very diverse. One out of every five students is unable to perform basic arithmetic tasks, and 14% of the students are unable to perform basic reading comprehension tasks. The NELS:88 provides some indicators of "at risk" status and has identified six primary risk factors. Pertinent methodological discussions and associated data are appended. Fifteen graphs and 69 data tables are included. (TJH)

SCOPE OF INTEREST NOTICE

The ERIC Facility has assigned this document for processing to: TM

In our judgment, this document is also of interest to the Clearinghouses noted to the right. Indexing should reflect their special points of view. PS

ED322221

NATIONAL CENTER FOR EDUCATION STATISTICS

National Education Longitudinal Study of 1988

A Profile of The American Eighth Grader

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

U.S. Department of Education
Office of Educational Research and Improvement

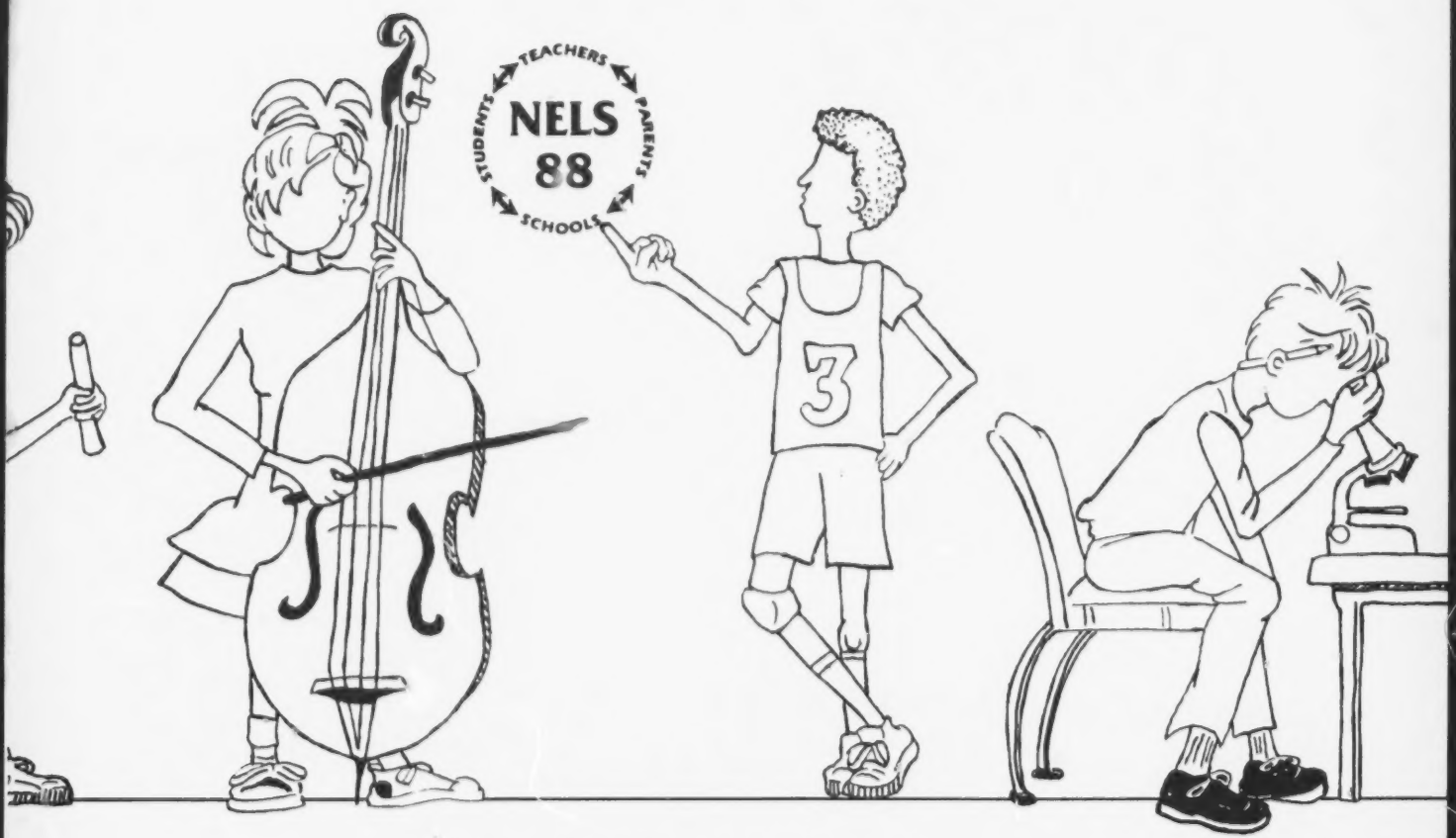
NCES 90-458

TM015507

BEST COPY AVAILABLE

National Education Longitudinal Study of 1988

A Profile of The American Eighth Grader: NELS:88 Student Descriptive Summary



Anne Hafner, National Center for Education Statistics
Steven Ingels, National Opinion Research Center
Barbara Schneider, National Opinion Research Center
David Stevenson, Office of Research, USED

Jeffrey A. Owings
Project Officer
National Center for Education Statistics

U.S. Department of Education
Lauro F. Cavazos
Secretary

Office of Educational Research and Improvement
Christopher T. Cross
Assistant Secretary

National Center for Education Statistics
Emerson J. Elliott
Acting Commissioner

Information Services
Sharon K. Horn
Director

National Center for Education Statistics

"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e–1).

June 1990

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

Major Findings

Statistical Profile

Results from the base year NELS:88 study reveal that the American eighth grade population is an incredibly diverse one.

- 71% of eighth graders are white, 13% are black, 10% are Hispanic, 4% are Asian/Pacific Islander, and 1% is American Indian or Alaskan Native.
- About 2% of the students are considered to be limited-English-proficient (LEP).
- A majority of students (63%) turned 14 years old in 1988 and about one third (36%) turned 15 or older in 1988. About 1 percent turned 13 or younger.
- About 88% of students are enrolled in public schools, 8% in Catholic schools and 5% in other private schools.
- Three-quarters of the eighth graders are enrolled in middle schools or junior high schools.
- Overall, 18% of the students reported they had repeated at least one grade.
- Among those who ever repeated a grade, eighth grade students 15 and older are far more likely than younger students to have reported repeating a grade in school (1% of 14 year olds, 43% of 15 year olds and 87% of students 16 or over reported they had repeated a grade).
- The typical eighth grader spends four times as many hours watching TV per week as on homework (21.4 hours watching TV, 5.6 hours doing homework).
- The average eighth grader spends only about 2 hours a week on reading outside of school.

Math and Reading Performance

Although about 80% of eighth graders have reached the "basic" level in mathematics (addition, subtraction, multiplication and division), one out of five is unable to perform such everyday arithmetic tasks. About 40% show proficiency at the intermediate mathematics level or above. This level is associated with knowledge of decimals, fractions and percents, which are reported to be major topics in junior highs and middle schools. Nineteen percent overall are proficient at the advanced mathematics level (simple problem solving, conceptual understanding).

- o About 30% of Hispanics, blacks, and American Indians are not proficient at the basic level.

- o Only about a quarter of Hispanics and blacks demonstrate proficiency at the intermediate level or above (knowledge of decimals, fractions and percents).

Eighty-six percent of eighth graders show basic reading proficiency (able to reproduce detail or the author's main thought). Fourteen percent of students overall are unable to perform such basic reading comprehension tasks.

- o Only about one-third (34%) of the eighth graders are proficient at the advanced level (able to make inferences beyond the author's main thought, to summarize, or make generalizations).

- o About 30% of students who usually speak a language other than English fail to show basic reading skills.

A socioeconomic status (SES) composite score scale made up of father's and mother's education level, father's and mother's occupation and family income was computed for each student. Large socioeconomic status group differences in reading and mathematics are seen.

- o When socioeconomic status is taken into account, average majority-minority group differences in mathematics and in reading are reduced by about 25 to 30 percent for blacks, Hispanics and American Indians.

- o Students in the top 25% of socioeconomic status are eight times as likely as those in the bottom 25% to show proficiency at the advanced mathematics level (39% vs. 5%).

- Among students in the bottom 25% of socioeconomic status, 18% of Asians, and fewer than 10% of whites, Hispanics, or blacks are proficient at the advanced mathematics level.

- Among students in the botoom 25% of socioeconomic status, about one-quarter of Asians, Hispanics and blacks, and 17% of whites fail to show basic reading skills.

At-Risk Issues

NELS:88 is a powerful vehicle for looking at at-risk issues. Among its special features are the following: it begins at eighth grade, and has 2-year followups, an oversample of language minorities, and a sample of limited-English-proficient (LEP) students. Although the majority of students succeeds in schools, a growing number can be identified as being "at risk" of failing to achieve in school or of dropping out.

NELS:88 provides some indicators of "at risk" status and has identified 6 primary risk factors.

- The six factors and the percentage of students associated with each of them are shown below.

  Single parent family (22%); Income less than $15,000 (21%); Home alone more than 3 hours a day (14%); Parents have no high school diploma (11%); Has a sibling who dropped out (10%); and Limited-English-proficient (2%).

- Overall, a little over one-half the students have no risk factors (53%), 26% have one risk factor and 20% have two or more risk factors.

About one-quarter of eighth graders report being home alone 2 or more hours without an adult present on school days.

- 13% report they are never home alone.

- 32% report they are home alone less than 1 hour a day.

- 28% report 1 to 2 hours home alone.

- 13% report 2 to 3 hours alone.

- 14% report 3 hours or more home alone.

- Blacks (20%) and American Indians (19%) are more likely than whites (12%) to report being home without an adult for more than 3 hours a day.

Risk factors are related to education outcomes and expectations. As the number of risk factors increases, the percentage of children with educational problems increases. NELS:88 will track dropouts over time and will be able to look at the relationship between risk factors and dropping out.

- Students with two or more risk factors are twice as likely as those with no risk factors to be in the lowest grades quartile (38% vs. 18%) and lowest test quartile (44% vs. 16%).

- Students with two or more risk factors are six times as likely as those with no risk factors to expect not to graduate from high school (4% vs. 0.6%).

School Safety and School Climate

Over two-thirds of eighth graders report a positive school experience, that they feel safe and that the teaching in their schools is good.

- 88% report that they feel safe at school.

- 80% report that the teaching is good.

- 75% report that teachers are interested in students.

- 69% report that discipline is fair.

- 69% report that there is real school spirit.

- 68% report that teachers listen to them.

- 67% report that students and teachers get long.

- 63% report that teachers praise their efforts.

Although most students report they feel safe at school, some subgroups are more likely than others to report negative experiences or safety concerns.

- Overall, 10% report someone has offered to sell them drugs at school.
- Blacks and American Indians are twice as likely as whites (18% vs. 9.9%) to report they don't feel safe at school.
- Public school students (13%) are more likely than private school students (6%) to report they don't feel safe at school.
- Hispanics and American Indians are more likely than others to report someone offered to sell them drugs at school (American Indians: 16%, Hispanics: 14% vs. whites: 10%, Asians: 5%, blacks: 8%).

High School and College Plans

Results of the base year study reveal that although a majority has high educational and occupational aspirations, many students are not planning to enter high school programs (e.g. college preparatory, vocational) that will lead them to realize their goals.

- About 35% of students aspire to careers in professional, business, managerial, science or engineering fields.
- Although two-thirds of the students plan to finish college or above, only about one-third plans to enroll in a college preparatory program in high school.
- 25% of eighth graders don't know which high school program they will enter.
- Hispanics (2%) and American Indians (3%) are more likely than whites (0.9%) and Asians (0.8%) to report that they probably will not graduate from high school.

Foreword

The National Center for Education Statistics (NCES) has embarked on what may be the most significant of its longitudinal education studies to date: the National Education Longitudinal Study of 1988 (NELS:88). This is the third in a series sponsored by NCES; the first two are the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B). Whereas NLS-72 and HS&B focused mainly on the educational, vocational, and personal development of 10th and 12th grade respondents, NELS:88 is both broader in scope and more pioneering in focus.

NELS:88 is being conducted in several waves. The first describes the experiences of the students as 8th graders; the second will trace them in the 10th grade; and the third will follow them to the 12th grade.

Additional followups will come at 2-year intervals. The longitudinal design of NELS:88 allows researchers to observe not only the critical transition of students from middle or junior high school to high school, but also to identify early student, school, and parental experiences that promote student learning. This report describes the experiences of the students in eighth grade during spring 1988.

The NELS:88 study examines the attitudes, school performance, and activities of eighth grade students. It also incorporates supporting data from students' school principals, parents, and teachers to identify additional factors that affect student achievement. In this sense, NELS:88 takes into consideration the much larger environment in which the student functions and develops. The study assumes that a student's eighth grade experiences are critical to the student's further social, emotional, and academic development.

The inclusion of the teacher, school, and parent surveys enhances the quality and quantity of data collected on student academic achievement and social development. The milieu in which learning occurs is complex and invites intense scrutiny by researchers and policymakers.

One of the major questions this study addresses is, "Under what circumstances do our children flourish and succeed?" The NELS:88 data will provide a wealth of information about factors that influence a student's academic performance and social development. Policymakers can use this information to turn the numbers and statistics into practical, workable programs to help solve the problems facing the American educational system and its students.

Paul Planchon, Associate Commissioner
Elementary/Secondary Education Statistics Div.

Jeffrey Owings, Branch Chief
Longitudinal and Household Studies Branch

Acknowledgments

We would like to thank the many individuals and organizations that played a significant role in the National Education Longitudinal Study of 1988 (NELS:88). First, we would like to thank the 25,000 students, their principals, teachers, and parents who participated in the base year survey. Special appreciation is given to the Chief State School Officers, district superintendents, and state coordinators who assisted in securing school cooperation.

Several organizations also assisted in the conduct of the study, including the Committee on Evaluation Information Systems of the Council of Chief State School Officers (now known as Education Information Advisory Council), the Council of the Great City Schools, the National Association of Independent Schools, and the National Catholic Education Association. Their participation greatly enhanced school cooperation and construction of key questionnaire items.

Special thanks to the members of our Technical Review Panel, who have been active in advising NCES on the design, questionnaire development, implementation, and uses of the study: Jerald Bachman, Program Director and Research Scientist, Institute for Social Research, University of Michigan; Gordon Ensign, Supervisor, Testing and Evaluation, State of Washington; Lyle Jones, Director, L.L. Thurstone Psychometric Laboratory, University of North Carolina; Stephen Kaagan, former Commissioner of Education, Vermont Department of Education; Nancy Karweit, Research Scientist, Center for Social Organization of Schools, Johns Hopkins University; Patricia Shell, Superintendent, Brazosport Independent School District, Freeport, Texas; Marshall Smith, Dean, College of Education, Stanford University; Richard Murnane, Associate Professor of Education, Harvard University; and John Stiglmeier, Director, Information Center on Education, New York Department of Education.

Thanks also to Donald Rock, Judith Pollack, and other staff members at Educational Testing Service for developing the cognitive tests for the project. Also thanks to Westat for its role in designing the school and teacher questionnaires and data collection activities related to that effort.

We also wish to thank the National Science Foundation, the Office of Bilingual Education and Minority Language Affairs, the Office of Planning, Budget, and Evaluation, and the National Endowment for the Humanities for their support for supplements to the base year study.

The National Opinion Research Center (NORC), under the direction of the National Center for Education Statistics

(NCES), undertook the design and conducted the base-year study. Steven Ingels, the project director, was assisted by Martin Frankel, Bruce Spencer, Paul Buckley, Kenneth Rasinski, and Sameer Abraham. Calvin Jones, formerly of NORC, was project director for the first 2 years of the project.

We would like to thank Emerson Elliott, Acting Commissioner of NCES, David Sweet, Associate Commissioner of Education Assessment Division, and Dennis Carroll, Chief of Longitudinal Studies Branch, Postsecondary Education Statistics Division, for their guidance and support during this base year study.

This capsule report was prepared by NORC in cooperation with NCES. The principal authors are Anne Hafner, NCES; Steven Ingels, NORC; Barbara Schneider, NORC; and David Lee Stevenson, Office of Research. We would like to give a special thanks to Jeffrey Owings, NCES Chief of the Longitudinal and Household Studies Branch and Project Officer for NELS:88, who has overseen all aspects of the base year study. His careful attention to this study and the capsule report is gratefully appreciated. Other individuals at NORC who helped in the preparation this report include Stephen Plank, Carol Prindle, Leslie Anderson, Regina Dixon-Reeves, David Lewis and Rochelle Gary-Flowers. We also thank Brenda Landy, President of Landy and Associates, and James Wolf, Director of the Survey of Research Center at the University of Kentucky for their assistance in data analyses. At OERI, we also would like to thank Jerry West, Kirk Winters, Peggy Quinn and Sindy McGill for their help. Sindy assisted in assembling the report, and with format and style issues. Skee Smith was the editor for the manuscript, and Phil Carr designed the cover. Figures on the cover were drawn by Pamela Rodriguez of the University of Chicago.

The authors would also like to thank the internal NCES reviewers: Mary Frase of the Data Development Division, Dennis Carroll of the Postsecondary Education Statistics Division, Sharon Bobbitt of the Elementary/Secondary Education Statistics Division, as well as Sue Ahmed, Statistician, of the Statistical Standards and Methodology Division. In addition, we would like to acknowledge our external reviewers: Audrey Pendleton of OPBE, U.S. Department of Education; Rafael Valdivieso of the Hispanic Policy Development Project; and Arthur Powell of the National Association of Independent Schools.

A PROFILE OF THE AMERICAN EIGHTH GRADER: NELS:88 STUDENT DESCRIPTIVE SUMMARY

CONTENTS

	Page
Major Findings	iii
Foreword	ix
Acknowledgments	x
List of Tables	xv
List of Figures	xix
Introduction	xxi
CHAPTER 1: Profile of Eighth Graders	
What They Look Like	1
How They Feel About Themselves	14
Where They Go To School	18
CHAPTER 2: Experiences in School	
How They Are Doing: Test Scores and Grades	23
What Courses They Enroll In	35
What Extracurricular Activities They Participate In	40
Student Impressions of School Climate and School Safety	42
CHAPTER 3: Life Outside of School	
How Students Spend Their Time	47
When Students Come Home From School	50
Clubs and Activities Outside of School	54
Employment Experiences	56
CHAPTER 4: Getting Ready for High School	
High School Choice	59
Selecting a High School Program	62
Educational and Occupational Aspirations	69
ENDNOTES	77
REFERENCES	79

CONTENTS

Page

APPENDIX A: Sample Composition by Selected Background Composite Variables..... A-1
APPENDIX B: Methodology and Technical Notes..... B-1
APPENDIX C: Mathematics & Reading Proficiency Levels: Example Items..... C-1
APPENDIX D: Data for Figures..... D-1
APPENDIX E: Standard Errors and Sample Sizes for Tables..... E-1

LIST OF TABLES

Table		Page
1.1	Percentage of eighth graders from families with different levels of education and affluence, by selected background characteristics	3
1.2	Percentage of eighth graders from different types of households, by selected background characteristics	6
1.3	Percentage of eighth graders who report repeating one or more grades in school, by year of birth and selected background characteristics	9
1.4	Percentage of eighth graders with one or more risk factors, by selected background characteristics	13
1.5	Percentage of eighth graders with various risk factors, by selected background characteristics	15
1.6	Percentage of eighth graders in low, medium, and high self-concept groups, and high external, neutral, and high internal locus of control groups, by selected background characteristics	17
1.7	Percentage of eighth graders who are enrolled in various school sectors, by selected background characteristics	19
2.1	Percentage of students in various racial/ethnic and language groups who are proficient at each mathematics proficiency level	29
2.2	Percentage of various racial/ethnic and language groups who are proficient at each reading proficiency level	29
2.3	Percentage of eighth graders classified into selected quartiles based on self-reported grades from grade 6 until grade 8, by selected background characteristics	34
2.4	Percentage of eighth graders who report enrolling in various math courses or combinations of math courses, by selected background characteristics	36

Table		Page
2.5	Percentage of eighth graders who report enrolling in a science course with laboratory, science course without laboratory, or no science course, by selected background characteristics	38
2.6	Percentage of eighth graders who report enrolling in regular English, remedial English, or no English course, by selected background characteristics	39
2.7	Percentage of eighth graders who report participating in various school-based extracurricular activities, by selected background characteristics	41
2.8	Percentage of eighth graders agreeing or strongly agreeing with various statements about their schools, by selected background characteristics	43
2.9	Percentage of eighth graders reporting various safety-related occurrences in their schools, by selected background characteristics	45
3.1	Average number of hours spent per week on outside reading, homework, and television watching, by selected background characteristics	49
3.2	Percentage of eighth graders who usually have no one home when they return home from school, by selected background characteristics	52
3.3	Percentage of eighth graders spending various numbers of hours after school each day at home with no adult present, by selected background characteristics	53
3.4	Percentage of eighth graders participating in outside-school activities, by selected background characteristics	55
3.5	Percentage of eighth graders reporting various jobs ever worked for pay, by selected background characteristics	57

Table		Page
4.1	Percentage of eighth graders planning to attend various types of high schools, by eighth grade school type	60
4.2	Percentage of eighth graders planning to attend various types of high schools, by selected background characteristics	63
4.3	Percentage of eighth graders planning to enroll in various high school programs, by selected background characteristics	66
4.4	Percentage of eighth graders planning to enroll in various high school programs, by selected courses taken in eighth grade	67
4.5	Percentage of eighth graders who never discussed high school programs with various adults, by expected high school program	68
4.6	Percentage of eighth graders aspiring to various occupations, by selected student characteristics	70
4.7	Percentage of eighth graders aspiring to various education levels, by selected student characteristics	71
4.8	Percentage of eighth graders who cite various probabilities for graduating from high school, by selected background characteristics	73
4.9	Percentage of eighth graders with various education problems, by number of risk factors	76

LIST OF FIGURES

Figure		Page
1.1	Percentage of eighth graders in various family types with low family incomes (LT $15k), by family type	5
1.2	Percentage of eighth graders who repeated one grade, by year of birth	10
1.3	Percentage of eighth grade students enrolled in public and private schools schools	20
1.4	Percentage of eighth grade students in schools with various grade spans	22
2.1	Percentage of all students who are proficient at each mathematics proficiency level	25
2.2	Percentage of eighth graders proficient at each mathematics proficiency level, by race	26
2.3	Percentage of all students who are proficient at each reading proficiency level	28
2.4	Percentage of eighth graders proficient at each reading proficiency level, by language usually spoken	30
2.5	Percentage of eighth graders in low and high SES groups who are proficient in advanced mathematics, by race	32
2.6	Percentage of eighth graders in low and high SES groups who fail to show basic reading skills, by race	33
3.1	Average hours per week spent on various activities	48
3.2	Hours per week spent on various activities, by school type	51
4.1	Percentage of eighth graders planning to attend high school types, by eighth grade school type	61

LIST OF FIGURES

Figure **Page**

4.2 Percentage of eighth graders planning to enroll in various high school programs..... 65

4.3 Percentage of eighth graders with educational problems, by number of risk factors..... 75

Introduction

Third in a Series of Longitudinal Studies Sponsored by NCES

The National Education Longitudinal Study of 1988 (NELS:88) is the most comprehensive longitudinal study conducted to date by the National Center for Education Statistics (NCES) of the U.S. Department of Education. NCES's longitudinal studies program is based on a commitment by the agency to collect and analyze data on the factors affecting the transitions of students from elementary school to high school and eventually to productive American society. NELS:88 shares several important design features with other longitudinal studies initiated by NCES: the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B).

The current longitudinal studies program provides statistics on the education, work, and family experiences of young adults during the pivotal transitions from eighth grade to high school and from high school to postsecondary education and the world of work. Since NLS-72, each successive longitudinal study conducted by NCES has grown substantially in complexity with respect to sample specifications, sources of information, and instrument sophistication. The NELS:88 design reflects two decades of successful experiences with longitudinal education studies.

NELS:88 differs from both NLS-72 and HS&B in that the first data collection phase begins in the 8th grade rather than high school. The decision to begin the study in 8th grade was made to provide pre-high school baseline data and construct a national database with the capacity to systematically examine the critical transitions students undergo moving from 8th grade in elementary, middle, or junior high school through 10th grade in secondary school. This period of transition is important for exploring broader policy issues such as how students are counseled into specific high school programs and courses and what impact program choice has on their 10th grade experiences. Information will be available about the effects of this transition on student attitudes, aspirations, self-esteem, and academic performance.

Purpose of NELS:88

As a large-scale, longitudinal study, the survey's fundamental purpose is to provide trend data about pivotal transitions experienced by young people as they develop, attend school, and embark on careers. Taking the pulse of these young Americans will ultimately contribute to an understanding of student development, effective schools, and the myriad factors that determine individual educational and career outcomes.

Substantively, NELS:88 was specifically designed to examine student achievement over time, along with family, community, school, and classroom factors that promote or inhibit educational success. Other issues addressed by NELS:88 include: how students are assigned to curricular programs; how program assignments affect academic performance and future career choices; what role the family plays in shaping educational attitudes and behavior; how teacher judgments of student motivation and classroom activities influence academic performance; and how school policies affect student educational and social outcomes.

Analytic Potential

The availability of this longitudinal database encourages in-depth research for meeting the educational policy needs of the 21st century. There is no doubt that American schools are presently in a state of crisis, but the educational policies and structure instituted to meet the needs of the next century will have a sound foundation in the comprehensive database that NELS:88 provides. The NELS:88 data obtained from the base year and subsequent waves will contribute to increasing our understanding of the transition patterns as eighth graders move from a more socially homogeneous neighborhood school to a more heterogeneous consolidated high school; to understanding the dynamics of tracking and what roles students, teachers, administrators, and parents play in that process; and to identifying the features of effective schools, and determining whether the features differ for particular groups of children.

Although NELS:88 is primarily a longitudinal study, the data reported in this report are cross-sectional, as only one wave of the survey has been carried out. This report is a snapshot of the NELS:88 sample at one point in time and primarily focuses on data obtained from student questionnaires. The base year survey is valuable in itself, as it is the first nationally representative sample of eighth graders. The survey's analytic potential will increase in 1990 and 1992, as new waves are added.

Base Year Design

The base year survey was conducted in spring 1988. The study design includes a clustered, stratified national probability sample of approximately 1,000 schools (800 public schools and 200 private schools, including parochial institutions) in the United States that enroll eighth grade students. Almost 25,000 students across the United States participated in the base year study. The sample represents the Nation's eighth grade population, totalling about 3 million eighth graders in more than 38,000 schools in spring 1988.

Questionnaires and cognitive tests were administered to each student in the NELS:88 sample. The student questionnaire covered school experiences, activities, attitudes, plans, selected background

characteristics, and language proficiency. Other groups of respondents provided additional types of information. An administrator such as a principal filled out a questionnaire about the school; two teachers of each student were asked to answer questions about the student, about themselves, and about their school; and one parent of each student was surveyed regarding family characteristics and student activities. The total survey effort thus provides a comprehensive database for analyses (see Ingels et al. NELS:88 Base Year Student Data File User's Manual, NCES, 1990, for detailed information).

Planned Base Year Reports

In addition to this student descriptive report, several other base year reports are in preparation or are planned for release in 1990 or early 1991. These include a parent descriptive report, which covers family characteristics, activities, parent discipline, parent interactions with students, and financial planning for the child's future. In addition, a school descriptive report is planned. This report will discuss school characteristics, climate, practices, and policies in various types of schools (such as urban public, suburban public, rural public, Catholic, and private); and school structure and size. ED-TABS (tabular summaries) are in preparation on student course-taking and test results.

Analytical reports are planned on the following topics: Student Language Proficiency, Home Language, and Academic Achievement; Quality of Responses by Eighth Grade Students in NELS:88 to Questionnaire Items; and Math and Science Teaching in Eighth Graders' Classrooms. These specialized reports address in detail important policy issues that cannot be covered in this descriptive report.

Organization of Report

This descriptive report presents information on the characteristics of the 1988 eighth grade class. Comparisons reported here are organized around differences found by race/ethnicity, sex, and other background characteristics. The report is organized into four chapters. The first provides a profile of the American eighth grader (school in which enrolled, individual and familial characteristics, basic demographic data, and self-concept); the second describes experiences in school (grades and achievement test results, coursework, participation in school activities, and attitudes about school); the third describes the students' lives outside of school (out-of-school activities, time spent at home alone, and work experience); and the last section examines preparation for high school (the type of high school in which they plan to enroll, what they plan to study in high school, and their educational expectations and occupational aspirations). Each of the chapters begins with an overview of the general issues addressed, as well as how subgroups relate to various issues. Some comparisons by subgroup are made.

Many of the background variables commonly used in education research (race, socioeconomic status, language proficiency, family composition, parent education) are highly related to each other, and multivariate analysis generally allows for a more appropriate description of interrelationships. In this report, only univariate analysis is carried out. Appendix A - "Sample Composition" shows the general characteristics of the sample. Missing responses are not listed. The number of missing responses can be calculated by subtracting the sum of the listed categories from the total **n** (24,599). Appendix B provides a detailed description of the methodology used in the study's analysis, definitions of variables used, and all technical notes. Appendix C displays example cognitive test items for reading and math proficiency levels. Appendix D presents all data for the figures in the text. Appendix E displays standard errors and sample sizes for tables in the report.

It should be noted that the estimates presented in this descriptive report are based on a data file which differs slightly from the public-use tape. Some revisions were made in categorizing several background variables between the time of the writing of this report and the creation and release of the public-use file, to protect the confidentiality of the individual respondents.

All comparisons cited in this report have been tested for statistical significance, using Bonferroni adjustments, and are significant at the .05 level. The overall alpha is adjusted, based on the number of possible comparisons (see appendix B for a discussion of procedures used).

Chapter 1: Profile of the Eighth Graders

This report draws a profile of the population of 3 million eighth graders enrolled in over 38,000 public and private schools across the nation in the 1987-88 school year. Statistics, however, only tell part of the story of the lives of our Nation's adolescents. This descriptive report tries to provide an impartial perspective on the environments in which such young people are growing up.

Early adolescence is a time when children are exposed to many different situations which may influence their future schooling experiences. Although the majority of students succeed in school, a large number of students can be identified as being "at risk"[1] of failing to achieve in school or of dropping out of school. NELS:88 includes students of all kinds: those who are not at risk of school failure and those who, to various degrees, are at risk. Some special features of the design which make it a powerful vehicle for examining at-risk issues are: a) it begins at eighth grade; b) it has 2-year followups; and c) it contains an over-sample of language minorities.

This chapter is divided into three sections. First, we look at demographic characteristics of eighth graders, along with their family, language, and academic characteristics. Next, we explore how the students feel about themselves. Finally, we examine the schools that enroll eighth graders. Each section begins with an overview of general socio-demographic patterns. Similarities and differences are examined for selected groups defined by sex, race/ethnicity, socioeconomic status,[2] and other background characteristics.

What They Look Like

Basic Demographic Characteristics

The NELS:88 eighth grade population is an incredibly diverse one. Seventy-one percent are white, 13 percent are black, 10 percent are Hispanic, 4 percent are Asian or Pacific Islander and about 1 percent are American Indian or Alaskan Native. Most of the students (63 percent) were born in 1974, turning 14 years old in 1988. Thirty percent of the eighth graders were born in 1973 (turning 15 in 1988), about 6 percent turned 16 or older (born between 1970 and 1972) and about 1 percent were born in 1975-1979 (13 or younger).

The eighth graders can be grouped by the use of certain languages spoken in their home into four types of families. HOME LANGUAGE (a composite variable) characterizes the primary language used by the family, differentiating between English and non-English languages and by whether the language was the only language or the dominant one among several spoken at home. It is derived from student reports. Students are assigned to the "English only" group if no language other than English is

spoken. If the language usually spoken in the home is English, but another language is also used, the student is considered "English dominant". If another language is usually used, and English is not spoken in the home, the student is assigned to "non-English only". If another language is usually used in the home, and if English is also spoken in the home, the student is considered "non-English-dominant".

For the total eighth grade population, 83 percent report living in English-only homes, 7 percent in English-dominant homes, 7 percent in non-English-dominant homes and 3 percent in non-English-only homes. Students were also asked which language usually is spoken in their home (generally English, Spanish, and other language are the categories used in this report).

English language proficiency is a commonly-used indicator of educational disadvantage. Students were categorized into two groups, limited-English-proficient (LEP) or non-LEP, based on either self-report or a teacher-report of limited English. About 2 percent of the population were identified as LEPs.[3]

Parent Education and Income

Table 1.1 displays the percentage of eighth graders from families with different levels of parental education and income, by selected background characteristics. About 11 percent of the students' parents did not finish high school, 21 percent completed high school, 42 percent have some college, 14 percent are college graduates, and about 12 percent have graduate degrees (see appendix B for a description of the parent education composite).

A socioeconomic status quartile variable (SESQ) was built using parent questionnaire data: father's education level, mother's education level, father's and mother's occupations, and family income (see appendix B for details on construction). Students were placed in quartiles, based on their standardized composite score. This scale is most likely more reliable than individual items such as family income.

Previous survey research has established certain patterns which emerge again here when race/ethnicity is paired with parent education and income. As found in previous research, Asians are more likely than other ethnic groups to have parents who are college graduates. Hispanic students are more likely than other groups to have parents who did not finish high school. Children who score in the bottom 25 percent on the cognitive test are 10 times as likely as children in the top 25 percent to be in households with parents who did not graduate from high school. The family income of these eighth graders ranges from none (0.4%) to $200,000 or more (0.9%), with a median income of slightly less than $35,000. About 21 percent of students are in families earning less than $15,000. Fifty-eight percent of the students are in families in the middle

Table 1.1.--Percentage of 8th graders from families with different levels of education and affluence, by selected background characteristics

Background characteristics	PARENT EDUCATION					FAMILY INCOME		
	LESS THAN HIGH SCHOOL	HIGH SCHOOL GRADUATE	SOME COLLEGE	COLLEGE GRADUATE	GRADUATE DEGREE	LESS THAN $15,000	$15,000-50,000	GREATER THAN $50,000
TOTAL	10.5	20.9	42.1	14.2	12.3	21.1	57.5	21.4
SEX								
Male	10.1	21.2	41.5	14.6	12.6	20.0	58.1	21.9
Female	11.0	20.6	42.6	13.9	11.9	22.2	56.9	20.9
RACE/ETHNICITY								
Asian/Pacific Islander	9.1	12.8	33.0	23.3	21.7	18.3	51.1	30.6
Hispanic	33.3	18.0	36.2	6.5	5.9	37.5	53.0	9.5
Black	15.8	23.8	46.8	7.5	6.2	47.0	43.9	9.1
White	6.2	21.2	42.3	16.3	14.0	14.1	60.9	25.1
American Indian/ Alaskan Native	14.7	23.7	45.2	10.6	5.8	41.8	49.2	9.0
TEST QUARTILE								
Lowest quartile	21.4	27.3	40.7	7.0	3.6	37.3	53.0	9.8
25-49%	11.7	24.2	46.5	11.1	6.5	25.3	59.0	15.8
50-75%	6.5	20.7	45.8	15.6	11.5	15.0	62.3	22.7
Highest quartile	2.1	11.1	36.0	23.1	27.7	7.5	55.4	37.1
LANGUAGE PROFICIENCY								
Limited English	38.9	21.1	28.5	6.4	5.1	49.3	44.2	6.5
Non-Limited English	9.9	20.9	42.4	14.4	12.4	20.5	57.8	21.7
FAMILY COMPOSITION								
Mother & father	8.7	19.4	40.1	16.5	15.4	11.8	60.8	27.4
Mother & male guardian	9.5	22.5	49.6	10.9	7.5	23.5	59.2	17.4
Father & female guardian	8.2	21.0	47.6	14.0	9.1	13.5	62.3	24.2
Mother only	15.3	25.7	44.6	9.2	5.3	53.4	42.8	3.8
Father only	11.5	21.4	43.4	12.6	11.2	20.7	64.8	14.5
Other relative or nonrelative	24.7	20.3	38.8	9.6	6.5	43.0	47.3	9.7
URBANICITY								
Urban	12.5	19.0	41.7	15.0	11.9	26.9	54.1	19.1
Suburban	8.4	18.8	41.4	16.0	15.4	14.5	56.9	28.7
Rural	11.9	25.4	43.3	11.4	8.3	25.8	60.8	13.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

range of income, with incomes ranging from $15,000 to $50,000, and about 21 percent are in families with incomes of greater than $50,000 (see appendix A for more detailed income breakouts).

Black, Hispanic, and American Indian children are disproportionally represented among low income families. Thirty-eight percent of Hispanic youth are in families with low incomes (less than $15,000). Forty-seven percent of black students and 42 percent of American Indian students are in families with incomes of less than $15,000.

Family composition has been shown to be associated with family income, test scores, and grades (Milne et al. 1986 and Shinn 1971). Students living with both mother and father are more likely to live in households with incomes of greater than $50,000, compared with mother only, father only, mother and male guardian, or other relative or non-relative only.

As seen in figure 1.1, students who are in mother-only families are more likely than students in other types of families to be living in low income households (below $15,000). Although, overall, 21 percent of students live in low income house-holds, 53 percent of students in mother-only households live in low income households (table 1.1).

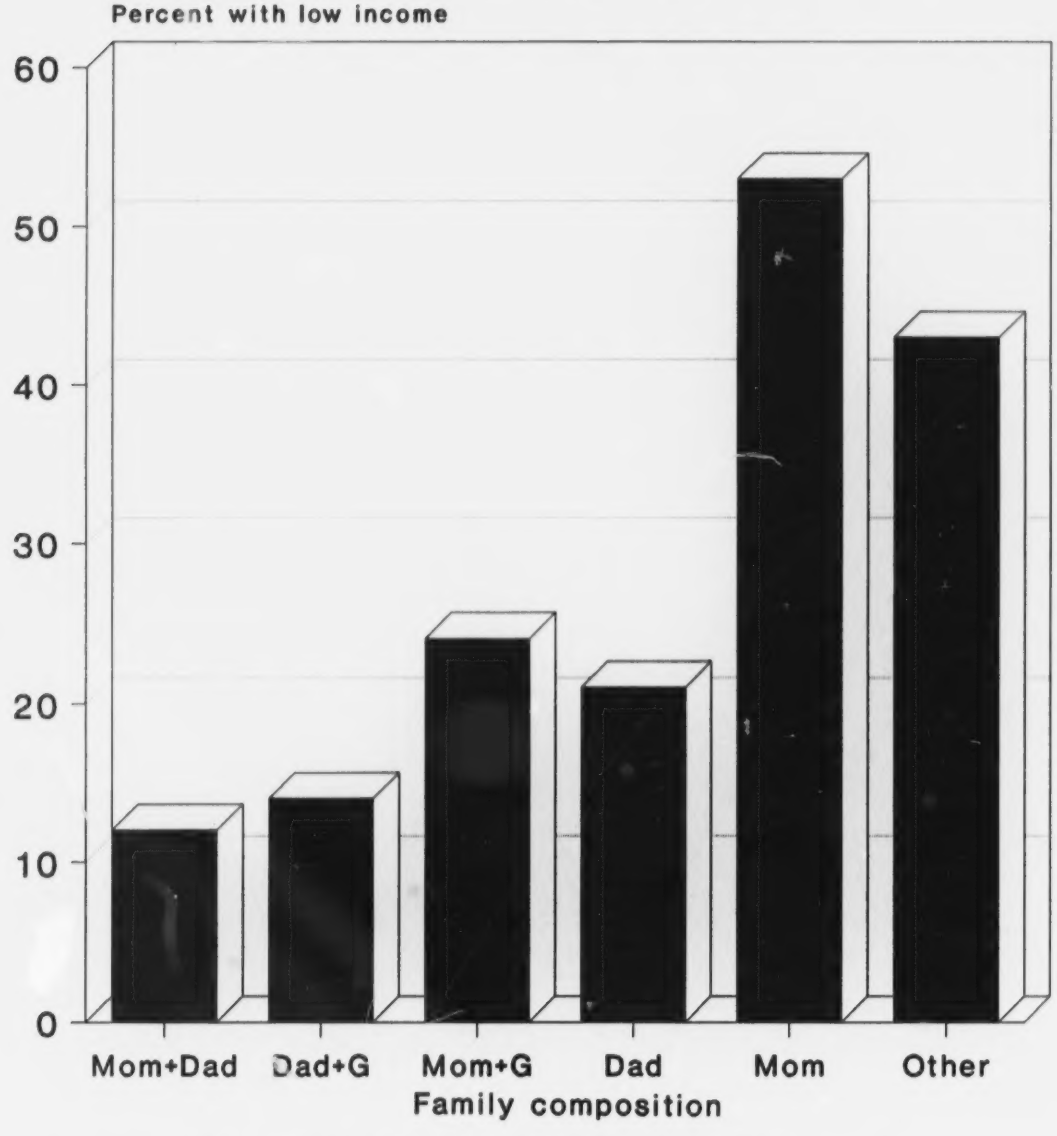
Thirty-nine percent of LEP students have parents who did not finish high school, about four times as many as non-LEP's (10 percent). LEP students are more than twice as likely as non-LEP's to live in families with incomes of less than $15,000. It is evident that student language proficiency is associated with other characteristics related to educational disadvantage.

Family Composition

Living in a single parent family is commonly associated with poverty. The U.S. Bureau of the Census reports that approximately 27 percent of children aged 10-14 were living in households that did not have two parents in 1985[4] (U.S. Bureau of the Census 1986). Table 1.2 displays the percentage of NELS:88 eighth graders living in different types of households in 1988. The first column (single-parent household) is the sum of columns 5, 6 and 7 (mother only, father only, and other relative or non-relative). About 22 percent of NELS eighth graders report living in a single-parent household. About 64 percent of students live with their own mother and father, and another 14 percent live with a mother and male guardian or father and female guardian, for a total of 78 percent living with two parents.

Black students are more likely than other ethnic groups to be in single parent households. Blacks are three times as likely as whites to be in households with only a mother. Asian students are more likely than others to live in households with both their mother and father.

Figure 1.1. Percentage of eighth graders with low family incomes (less than $15K) by family type



Source: U.S. Dept. of ED, NELS:88, Base Year

Table 1.2.--Percentage of 8th graders from different types of households, by selected background characteristics

Student characteristics	SINGLE PARENT HOUSEHOLD[1]	SINGLE PARENT/OTHER RELATIVE: MOTHER/FEMALE GUARDIAN ONLY IN HOUSEHOLD	SINGLE PARENT/OTHER RELATIVE: FATHER/MALE GUARDIAN ONLY IN HOUSEHOLD	SINGLE PARENT/OTHER RELATIVE: OTHER RELATIVE OR NON-RELATIVE ONLY IN HOUSEHOLD	TWO PARENT: MOTHER & FATHER IN HOUSEHOLD	TWO PARENT: MOTHER & GUARDIAN HOUSEHOLD	TWO PARENT: FATHER & GUARDIAN HOUSEHOLD
TOTAL	22.3	16.5	2.6	3.2	63.6	11.5	2.6
SEX							
Male	22.0	15.7	3.0	3.3	64.5	10.6	2.9
Female	22.5	17.2	2.2	3.1	62.8	12.5	2.2
RACE/ETHNICITY							
Asian and Pacific Islander	14.3	8.3	2.4	3.6	78.4	5.4	1.9
Hispanic	23.4	17.7	2.2	3.5	63.5	11.2	1.9
Black	46.5	36.1	2.1	8.3	38.4	13.3	1.9
White	17.7	12.9	2.7	2.1	67.9	11.6	2.9
American Indian and Native Alaskan	31.1	21.1	3.6	6.4	55.6	11.8	1.5
SES QUARTILE							
Lowest quartile	34.5	26.0	2.8	5.9	50.3	12.9	2.3
25-49%	22.6	16.9	2.7	2.9	61.3	13.0	3.0
50-75%	19.4	14.5	2.5	2.4	65.2	12.5	2.3
Highest quartile	12.6	8.5	2.3	1.7	77.6	7.7	2.2
PARENT EDUCATION							
Less than high school	34.0	23.7	2.8	7.5	53.3	10.7	2.1
High school graduate	25.6	20.0	2.6	3.1	59.3	12.5	2.6
Some college	22.6	17.2	2.6	2.9	60.8	13.5	3.0
College graduate	14.8	10.4	2.3	2.1	73.9	8.8	2.5
MA degree/equivalent	11.8	7.6	2.2	1.9	80.4	6.2	1.6
PhD Degree/equivalent	9.4	5.5	2.5	1.4	79.4	8.7	2.6
LANGUAGE PROFICIENCY							
Limited English	31.1	23.0	2.6	5.5	56.6	9.7	2.5
Non-Limited English	22.0	16.2	2.6	3.1	64.1	11.5	2.5
TEST QUARTILE							
Lowest quartile	30.0	21.4	3.3	5.2	54.7	12.9	2.6
25-49%	23.8	17.5	2.4	3.9	60.1	12.9	3.1
50-75%	19.8	14.8	2.5	2.5	65.9	11.2	3.0
Highest quartile	15.0	11.6	2.1	1.3	73.8	9.4	1.8
URBANICITY							
Urban	29.4	22.7	2.6	4.1	56.8	11.6	2.1
Suburban	19.5	14.1	2.8	2.5	66.3	11.6	2.7
Rural	20.5	14.7	2.3	3.5	65.3	11.4	2.8

[1]This column is the sum of columns 5, 6 and 7 (mother only, father only, and other relative or non-relative). "Other relative or non-relative" group is included in the single parent household category, even through there is no parent in the home, and it may include 2 people (e.g., grandparents).

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

As seen in previous research, socio-economic status and parent education are related to single-parent-household status. About one-third of students in the bottom 25 percent of socioeconomic status are in single parent families, as compared with only 13 percent of those in the top 25 percent. Low socioeconomic-status youngsters are more likely than others to be in families with a mother only. By contrast, high socioeconomic-status students are far more likely (78 percent) than low socioeconomic-status children (50 percent) to be in a household with both parents (mother and father).

One-third of students whose parents did not finish high school are in single parent families, while only 15 percent of those whose parents are college graduates are in single parent families. Students whose parents have college degrees are more likely to be in households with both parents than those whose parents did not finish high school, were high school graduates only, or who only had some college. As seen in table 1.1, students who are living with both mother and father are more likely than students living with mother only, other relative or non-relative only, or mother and male guardian to have parents who are college graduates. Limited-English-proficient eighth graders are more likely than non-limited-English-proficient students to be living in single parent families.

Test achievement is often reported to be associated with family composition, in that students living with both parents are generally found to score higher than those who live with just one parent (Milne et al. 1986; Shinn 1971). NELS:88 students scoring in the bottom 25 percent of test scores are twice as likely as those in the highest 25 percent to be in single parent families (30 percent vs. 15 percent). Students in the top 25 percent of test scores are more likely than students at other achievement levels to be in households with both parents.

Student Academic Characteristics

Eighth grade students display a wide range of patterns in school achievement and attendance. In the base year questionnaire, students were asked to report on their grades in English, math, history/government, and science. A composite grade variable was created, which is an average from all four areas. The student grade average is generally used in this report in four quartiles, with low grades equal to 1.

In addition, students were given achievement tests in four subject-matter areas: mathematics, reading, science, and history/government. Cognitive test results are presented here in terms of a standardized test composite for reading and math with students falling in quartiles (low=1) depending on their test score. Proficiency scores on various levels are also available for each student on the reading and mathematics tests. These levels measure varying degrees of

cognitive difficulties (see chapter 2 for test and grade results and appendix B for description of levels).

Grade Retention

One common indicator of educational disadvantage is whether or not a child has been held back or repeated a grade in school. Students and their parents were asked whether they had repeated a grade and, if so, which grade.

Table 1.3 displays the percentage of eighth graders who reported repeating at least one grade in school, by year of birth and selected background characteristics.

About 18 percent of students reported repeating at least one grade.

Columns 2 through 12 (percent repeating kindergarten through eighth grade) were calculated using as a base only children who repeated at least one grade (18 percent of the sample). They are not calculated based on all the children responding to the survey. It should be noted that eighth graders are fairly reliable reporters of repeating grades. Parent reports of whether the child had been held back a grade were compared with student reports, and there was about 90 percent agreement.

Some interesting patterns emerge. Figure 1.2 displays the percentage of eighth graders who repeated at least one grade, by year of birth. The majority of eighth graders (63 percent) turned 14 in 1988. The self-reported age of the eighth grade students ranged from 10 to 18; but very few students turned less than 14 or older than 17 (about 1 percent). The three groups used were: a) students who turned 14 and younger in 1988 (born in 1974 and later); b) students who turned 15 in 1988 (born in 1973); and c) students who turned 16 and over in 1988 (born in 1972 and before).

As expected, among those who ever repeated, older students (these born in 1973 or before: 15-and 16-year-olds and older) are much more likely to have repeated a grade, compared with students born in 1974 and later (aged 14 and younger). However, younger students (born in 1974 and later) are more likely than students born in 1973, or 1972 and before to have repeated kindergarten (See appendix A for a distribution of years-of-birth of these eighth graders).

American Indians, Hispanics, and blacks are more likely than Asians and whites to repeat a grade. Among those who ever repeated, Asians and whites are more likely than blacks to report repeating kindergarten. LEP students are more likely than others to repeat grades; 30 percent of LEP students repeated at least one grade compared with only 17 percent of non-LEP students.

Table 1.3.--Percentage of those 8th graders who report repeating one or more grades in school, by year of birth and selected background characteristics

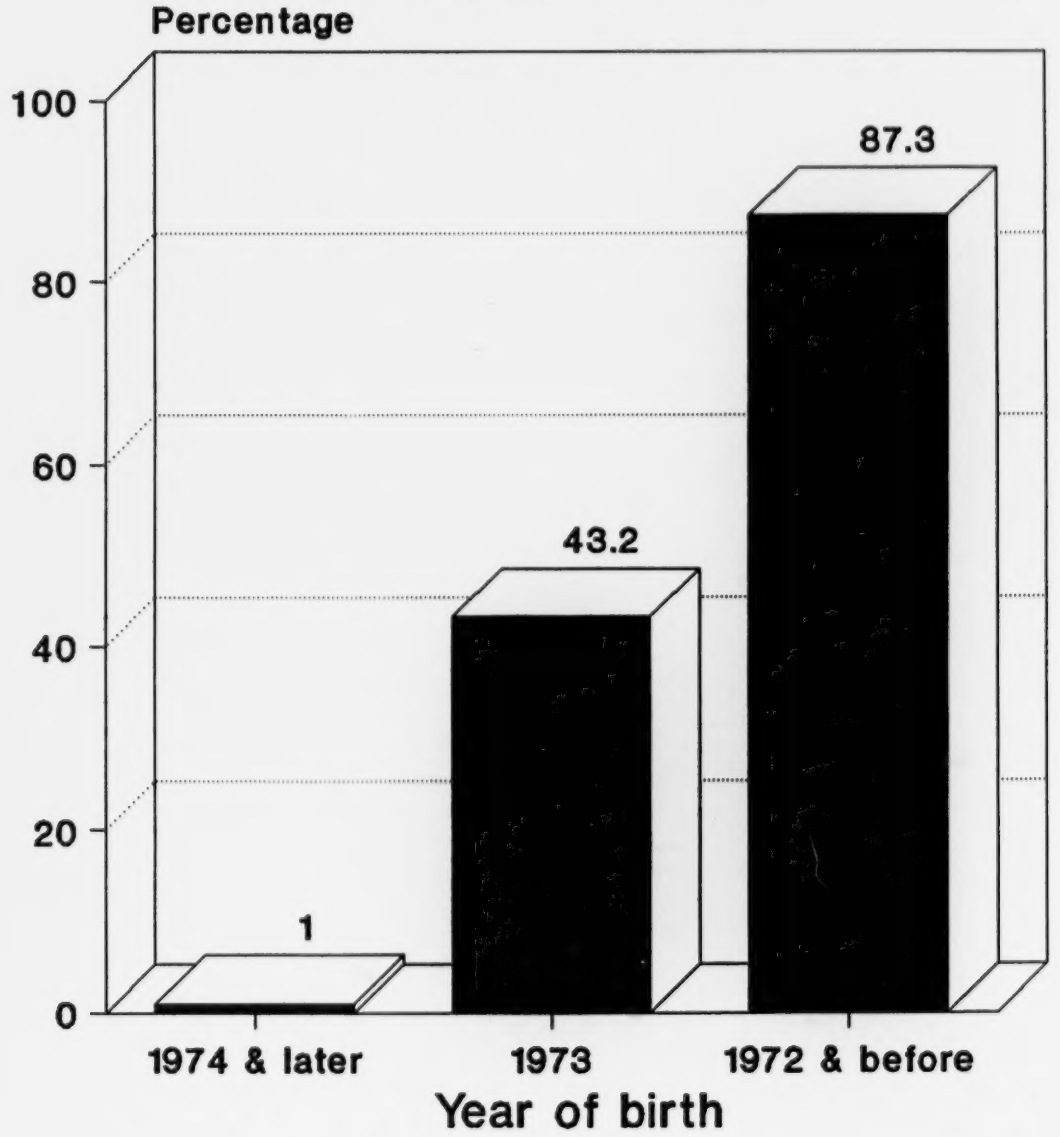
Background Characteristics	REPEATED AT LEAST ONE GRADE[1]	REPEATED EXACTLY ONE GRADE[2]	REPEATED 2 OR MORE GRADES	REPEAT K'DRTN	REPEAT 1ST GR	REPEAT 2ND GR	REPEAT 3RD GR	REPEAT 4TH GR	REPEAT 5TH GR	REPEAT 6TH GR	REPEAT 7TH GR	REPEAT 8TH GR
TOTAL	17.7	87.5	12.5	12.9	25.8	17.1	13.2	9.3	8.6	8.7	11.7	9.4
YEAR OF BIRTH												
1974 & later	1.0	92.6	7.4	22.5	25.5	16.1	15.9	10.4	12.2	13.3	13.3	13.6
1973	43.2	97.8	2.2	14.5	25.7	16.4	11.9	7.8	6.6	6.2	7.9	7.5
1972 & before	87.3	58.8	41.2	6.9	26.2	18.6	16.2	13.2	13.4	15.4	21.6	13.8
SEX												
Male	21.3	86.8	13.3	13.6	24.2	16.6	13.0	10.0	9.0	9.9	12.9	9.8
Female	14.2	88.7	11.3	11.8	28.2	17.9	13.6	8.2	8.0	6.9	10.0	8.8
RACE/ETHNICITY												
Asian and Pacific Islander	11.5	92.6	7.4	17.2	19.8	22.7	12.7	7.5	8.5	5.8	4.1	13.0
Hispanic	22.6	84.8	15.2	9.1	25.4	14.2	18.1	13.3	10.6	10.7	10.8	10.9
Black	26.1	86.3	13.7	5.1	20.7	18.5	15.0	11.7	12.2	11.6	12.4	10.1
White	15.6	88.5	11.5	15.8	27.7	16.5	11.6	7.4	6.9	7.6	11.6	8.6
American Indian and Native Alaskan	28.8	86.8	13.2	16.3	21.3	19.1	9.8	17.4	13.8	6.7	15.1	12.1
SES QUARTILE												
Low 25%	31.3	82.3	17.7	10.1	27.1	18.0	14.3	9.9	10.3	9.9	13.7	10.6
25-49%	19.1	89.0	10.9	11.9	27.3	17.0	13.9	9.1	8.0	8.0	10.9	8.8
50-75%	13.4	92.2	7.8	15.3	23.5	16.9	11.3	9.3	6.8	8.0	10.4	8.7
High 25%	8.2	96.2	3.8	21.7	21.3	14.5	10.7	7.4	6.3	7.1	8.3	7.5
GRADES												
Low 25%	33.6	83.3	16.7	10.8	25.8	15.8	12.6	10.6	9.6	9.6	14.6	12.5
25-49%	21.3	91.2	8.8	13.4	24.1	17.9	15.0	7.6	8.3	8.7	9.0	7.9
50-75%	13.1	90.1	9.9	12.9	27.4	17.9	12.1	10.2	7.8	7.5	10.6	5.3
High 25%	5.7	92.7	7.3	21.8	29.6	17.5	13.9	5.3	6.6	6.3	8.1	4.6
LANGUAGE PROFICIENCY												
Limited English	29.7	80.1	19.9	12.7	25.2	22.3	15.4	13.5	9.5	11.3	16.1	17.2
Non-Limited English	17.4	87.9	12.1	13.0	25.9	16.9	13.2	9.2	8.6	8.6	11.5	9.0
PARENT EDUCATION												
Less Than High School	35.0	80.3	19.7	8.4	27.6	19.3	14.9	9.9	10.9	10.7	14.3	8.9
High School Graduate	21.8	87.9	12.1	11.9	27.1	15.5	12.7	8.3	8.8	7.1	12.4	11.8
Some college	17.4	88.2	11.9	13.7	25.9	17.4	13.6	9.6	7.9	9.2	11.0	8.7
College graduate	9.6	95.3	4.7	18.3	20.2	16.9	11.9	10.1	6.2	7.5	8.0	7.0
MA degree/equivalent	6.9	96.8	3.2	26.7	19.3	18.7	9.4	6.4	6.8	4.7	8.2	3.0
PhD. degree/eqivalent	7.4	98.2	1.8	21.0	27.4	10.1	5.6	8.1	6.1	8.3	5.4	12.4
FAMILY COMPOSITION												
Mother & father	14.1	88.8	11.2	14.6	27.2	17.0	13.8	8.9	8.0	7.8	9.3	8.6
Mother & guardian	22.7	88.3	11.7	10.6	26.2	14.7	13.0	9.1	7.4	8.6	15.2	10.3
Father & guardian	23.9	83.2	16.8	15.0	27.6	16.7	12.8	6.2	8.0	7.9	15.5	9.4
Mother only	23.5	85.8	14.2	10.5	23.8	18.9	12.6	10.4	9.6	9.6	12.1	10.2
Father only	23.7	90.9	9.1	15.1	17.5	12.0	8.6	7.4	9.1	14.4	19.8	5.9
Other relative or non-relative	31.5	81.3	18.7	10.7	22.8	20.4	13.1	11.6	14.2	13.5	16.7	12.7
SCHOOL SECTOR												
Public	18.8	87.1	12.9	12.5	25.9	17.2	13.1	9.3	8.6	8.7	12.0	9.7
Catholic	9.7	93.6	6.4	13.3	26.3	16.7	14.6	8.4	11.2	10.5	7.2	1.9
Independent	11.5	96.6	3.4	28.6	13.9	12.4	13.3	7.9	6.5	10.0	10.6	10.8
Other Private	9.4	90.8	9.2	27.0	22.4	18.0	14.3	10.7	2.9	7.7	9.6	10.3

[1]Column 1 was calculated as the percentage of all children (entire population).

[2]Columns 2-12 were calculated as percentage of children who repeated at least one grade (18% of population), and are not based on all children.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

Figure 1.2. Percentage of eighth graders who repeated at least one grade, by year of birth



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

10

Not surprisingly, students in the lowest grades quartile are five times more likely than those in the highest grades quartile to repeat a grade (34 percent vs. 6 percent). However, among those who ever repeated a grade, while 22 percent of students with grades in the top grades quartile in eighth grade had repeated kindergarten, only 11 percent of students in the lowest 25 percent of grades had repeated kindergarten.

Students whose parents never finished high school are three times as likely to repeat a grade as students whose parents are college graduates (35 percent vs. 10 percent or less). Family composition also appears to be related to grade retention. Students who live with both a mother and father are far less likely to repeat a grade, compared with students who live with mother only, father only, mother and male guardian, father and female guardian, or other relative or non-relative. Students in households with other relatives or non-relatives are more likely to repeat a grade than students living with mother and guardian, father and guardian, mother only or father only.

Public school students are more likely than Catholic, independent, and other private school students to repeat a grade. However, among those who ever repeated a grade, twice as many independent and other private school students as public school students repeat kindergarten.

As discussed above, some diverse patterns are seen among those who repeat grades.

Among those who ever repeated a grade, twice as many independent and other private school students as public school students repeat kindergarten.

Among those who ever repeated a grade, students who are younger, Asian, or white, who have high parental-education levels, or are enrolled in independent or other private schools are more likely to repeat kindergarten than students who are older, Hispanic, or black, have low parental-education levels, or are enrolled in public school. Those students with high grades and from high SES families appear to be more likely to be held back in kindergarten, perhaps for maturational or developmental reasons. Among those who ever repeated a grade, students who repeat upper elementary grades are likely to have low grades, limited-English proficiency, or to come from a low SES quartile (which have all been shown to be related to academic problems). In later grades, grade retention is common for academic or cognitive reasons instead of for maturational reasons.

Children at Risk

As we look at various demographic characteristics of these eighth graders, it becomes apparent that some groups of children have higher degrees of risk of school failure. Certain key factors have

been found to be associated with "at risk" status.

According to Pallas, Natriello and McDill (1989), an "educationally disadvantaged" child is one who has been exposed to certain background factors or experiences in formal schooling, family, or community. These factors, which are not independent, have been shown to be correlated with poor performance in school. Some commonly used predictors of disadvantage which they feel are important to consider are living in a poor household or a single parent family, having a poorly educated mother, and having a non-English-language background.

Pallas, Natriello and McDill (1989) note that it is not possible to measure the number of educationally disadvantaged children precisely. Therefore, we have to rely on broad indicators. It is important to point out that not all poor children are educationally disadvantaged. Having a single risk factor does not indicate a child is destined for failure. For example, living in a single parent home or being non-white does not automatically mean a child is at risk of educational failure. And, in fact, most non-white students and students from single parent homes **do** succeed in school.

However, certain combinations of risk factors have been shown to be particularly detrimental to success. Examples of these are single parent homes with low incomes and parents with limited-English proficiency who have no high school diploma. Educational disadvantage should be understood in the context of how children interact with their family, school, and community. It may be especially important to look at children who do well, in spite of multiple risk factors.

NELS:88 provides some indicators of at-risk status. These include (among others) living in a single parent family, low parental education or income, limited-English proficiency, having a brother or sister who dropped out of high school, and being at home alone without an adult for a long period (e.g. greater than 3 hours) on weekdays. It is interesting to look at how these risk factors interrelate with other contextual variables.

Pallas, Natriello and McDill (1989) note that between 10 and 25 percent of children may be classified as disadvantaged, in terms of any one indicator. Although most estimates are between one-fifth and one-fourth, some believe as many as one-third of children are at risk. In order to examine how many students are at various degrees of risk, using the six factors mentioned above, the percentage of students with no risk factors, one risk factor, and two or more risk factors was computed.

Table 1.4 shows that, overall, 53 percent of students have no risk factors, 26 percent have one risk factor, and 20 percent have two or more. Although there are basically no differences by sex, at-risk status can be seen to vary greatly by race/ethnicity. Blacks, American Indians, and Hispanics

Table 1.4.--Percentage of eighth graders with one or more risk factors, by selected background characteristics

Background Characteristics	No Risk Factors*	One Risk Factor	Two or More Risk Factors
TOTAL	53.3	26.3	20.4
SEX			
Male	53.2	27.0	19.7
Female	53.4	25.5	21.1
RACE/ETHNICITY			
Asian/Pacific Islander	57.5	27.3	15.2
Hispanic	32.0	31.5	36.6
Black	28.4	30.7	40.9
White	61.5	24.5	14.0
American Indian/ Alaskan Native	35.3	33.2	31.5

*** Risk factors include single parent family, low parent education, limited English proficiency, low family income, sibling dropout, and home alone more than 3 hours on weekdays.**

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

are at least twice as likely as Asians and whites to have two or more risk factors. Whites are more likely than Hispanics, blacks, and American Indians to have no risk factors. Comparisons among students in various socioeconomic status quartiles and parent education levels are not made, as family income and parent education are both included as risk factors in computing the number of risks in table 1.4.

Fifty-three percent of students have no risk factors, 26 percent have 1 risk factor, and 20 percent have 2 or more.

Table 1.5 displays the percentage of eighth graders with six specific risk factors. Differences by sex are very small. As expected, race/ethnicity shows differences in rates of risk factors Blacks are more likely than all other ethnic groups to live in a single parent family. American Indians are more likely than Asians and whites to live in a single parent family. Blacks are more likely than all other groups (except American Indians) to be living in a family with low income (less than $15,000 a year). American Indians are more likely than whites and Asians to live in a low-income family. Blacks are more likely than Asians, Hispanics, and whites to be left home alone for more than 3 hours a day. Also, American Indian students are more likely than whites to be left home alone for more than 3 hours a day.

Hispanic students are more likely than other students to have parents who have no high school diploma, or to have a sibling who dropped out of high school.

Hispanic students are far more likely than other students to have parents who have no high school diploma. In particular, they are four times as likely as Asians, twice as likely as blacks, five times as likely as whites, and twice as likely as American Indians to have poorly educated parents. As expected, Hispanics and Asians are more likely than blacks and whites to be limited-English-proficient. Hispanic students are more likely than Asians, blacks, and whites to have a sibling who dropped out of high school. In addition, American Indian students are more likely than Asians to have a sibling who dropped out.

How They Feel About Themselves

A very important facet of adolescents' lives is their general self-concept: how they feel about themselves and their self-worth. A general self-concept scale was used on the NLS-72 and HS&B surveys, and the same scale items were used in NELS:88. General self-esteem is seen as "a liking and respect for myself" (Kanouse et al. 1980).

Table 1.5.--Percentage of eighth graders with various risk factors, by selected background characteristics

Background Characteristics	Parent is Single	Parents Have No H.S. Diploma 1/	Limited English Proficiency	Income Less Than $15,000	Has a Sibling Who Dropped Out	Home Alone More Than 3 Hrs.
TOTAL	22.3	10.5	2.3	21.3	10.0	13.6
SEX						
Male	22.0	10.1	2.4	20.0	10.3	14.3
Female	22.5	11.0	2.2	22.2	9.8	13.0
RACE/ETHNICITY						
Asian/Pacific Islander	14.2	8.8	7.1	17.8	6.1	15.9
Hispanic	23.4	33.4	8.8	37.5	16.0	16.3
Black	46.5	15.8	1.6	47.0	13.0	19.5
White	17.7	6.2	0.8	14.1	8.8	12.0
American Indian & Native Alaskan	31.1	13.4	8.6	40.1	15.1	18.6

[1]Neither of the student's parents have a high school diploma.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Based on self report, students were grouped by standardized self-concept scores into three groups: low, medium, and high, with approximately one-third in each group. Table 1.6 displays the percentage of eighth graders in low, medium, and high self-concept groups. Overall, 37 percent of students fall into the low self-concept group, 27 percent fall into the medium self-concept group, and 35 percent fall into the high self-concept group.

As shown in other research (e.g., High School and Beyond), males are more likely than females to show the highest self-concept levels. Blacks are more likely than whites, Hispanics, Asians, and American Indians to score in the high self-concept group. Limited-English proficiency appears to be related to self-concept. LEP students are more likely than non-LEP students to score at the lowest self-concept level.

Self-concept has been found to be related to students' grades, test scores, and other outcomes (Coleman et al. 1966). It is evident that academic factors relate to general self-concept. Students whose grades place them in the lowest grades quartile are more likely than those whose grades are in the highest grade quartile to have low self-concept scores. As found in research on the High School and Beyond data, those with low postsecondary education aspirations (plan only to finish high school) are far more likely to have a low self-concept score than those who plan to be college graduates. For example, while 36 percent of those planning to graduate from college have a low self concept, 50 percent of those planning only to graduate from high school have a low self concept score. Those who don't plan to finish high school are also more likely than those who plan to be college graduates to have a low self-concept score.

"Locus of control" is a psychological term which signifies the degree of control one perceives one has over one's life. It indicates the direction in which a person's inner psychological reference point lies, and is located on a scale from high external locus to high internal locus. Table 1.6 also displays the percentage of eighth graders in three categories of locus of control: high external, neutral (that is, neither high external nor high internal) and high internal locus of control groups.

In this analysis, about 33 percent of students were classified as having high external locus scores, 33 percent as having neutral locus scores (that is, neither high external nor high internal locus) and 34 percent as having high internal locus scores. Students who have high external locus of control scores tend to rely on external or outside sources. These students may feel they themselves have little control over the direction their lives are going. In addition, they are more apt than others to believe in "luck" rather than in planning or effort for getting ahead. Students with high internal locus scores, on the other hand, are more likely than others to

Table 1.6.--Percentage of eighth graders in low, medium and high self concept groups, and high external, neutral and high internal locus of control groups, by selected background characteristics

	LOW SELF CONCEPT	MEDIUM SELF CONCEPT	HIGH SELF CONCEPT	HIGH EXTERNAL LOCUS	NEUTRAL 1/	HIGH INTERNAL LOCUS
TOTAL	37.4	27.3	35.2	33.0	32.9	34.1
SEX						
Male	31.0	27.9	41.1	33.8	33.4	32.8
Female	43.9	26.8	29.4	32.2	32.4	35.4
RACE/ETHNICITY						
Asian and Pacific Islander	39.5	26.9	33.6	35.3	32.7	31.9
Hispanic	38.6	26.5	34.9	43.2	28.9	27.9
Black	19.2	31.5	49.4	39.9	29.9	30.1
White	40.4	26.8	32.8	29.8	34.2	35.8
American Indian and Native Alaskan	38.3	23.9	37.8	47.5	23.3	29.2
SES QUARTILE						
Lowest Quartile	39.3	27.0	33.8	45.2	29.6	25.2
25-49%	38.6	27.2	34.3	36.7	31.4	31.8
50-75%	37.5	27.5	34.9	28.2	35.6	36.8
Highest Quartile	34.4	27.7	37.9	22.1	34.8	43.1
GRADES						
Lowest Quartile	46.1	25.2	28.8	50.1	29.5	20.4
25-49%	39.9	28.3	31.8	38.1	34.9	27.0
50-75%	35.1	30.0	34.9	29.0	34.7	36.4
Highest Quartile	30.1	25.7	44.2	16.9	33.0	50.2
LANGUAGE PROFICIENCY						
Limited English	42.8	28.1	29.1	58.3	27.0	14.8
Non-Limited English	37.3	27.3	35.4	32.4	33.0	34.6
PSE PLANS						
Won't Finish High School	55.1	21.2	23.7	69.7	19.5	10.8
High School graduate	49.8	24.9	25.3	57.1	27.4	15.5
Vocational, Trade, or Business	42.2	27.3	30.5	44.2	32.3	23.7
Attend college	44.4	27.3	28.2	42.5	33.8	23.7
College graduate	35.9	29.0	35.1	26.2	36.5	37.3
Graduate school	27.4	25.7	46.9	22.2	29.3	48.5

1/Neither high external nor high internal.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

attribute internal forces for their own success or failure. They are more likely than high external locus students to feel they have control over the direction in which their lives are going, and tend not to believe in luck. Males and females show only slight differences in locus of control.

Racial/ethnic differences are pronounced, however. In particular, American Indians and Hispanics are more likely than Asians and whites to be classified in the high external locus of control category. Blacks are more likely than whites to show high external locus. Whites are more likely than Asians, Hispanics, and blacks to show high internal locus of control. Limited-English-proficient (LEP) students are almost twice as likely as non-LEP students to show high external locus.

Socioeconomic status appears to be related to locus of control. Students in the lowest SES quartile are twice as likely as those in the highest SES quartile to show high external locus. Grades also appear to be related to locus of control. Students in the lowest grades quartile are almost three times as likely as those in the highest grades quartile to show high external locus. Postsecondary education plans also appear to be related to locus of control. Those students with no plans to finish high school are more likely than other students to show high external locus. Students planning to be college graduates are more likely to show high internal locus, compared with those who do not plan to finish high school, those who plan to graduate from high school, those planning vocational or trade school, or those who plan to attend some college.

Where They Go to School

Table 1.7 displays general information about the schools in which eighth graders are enrolled. Eighty-eight percent of all eighth graders are enrolled in public schools, about 8 percent in Catholic schools, about 1 percent in "independent" schools, and 4 percent in other private schools (see figure 1.3).

The "independent" category refers to a group of elite private schools which are members of the National Association of Independent Schools. These schools are primarily non-religious, but include some religious schools. The "other private" category refers to private schools that do not classify themselves as either Catholic or independent. The majority of schools in this category are Lutheran, fundamentalist Christian academies, Jewish schools, etc. The NELS:88 school descriptive report (to be released at a later date) will disaggregate the public schools (e.g. urban-public, suburban-public, rural-public) in its reporting. It will also discuss student background characteristics for each of the sectors.

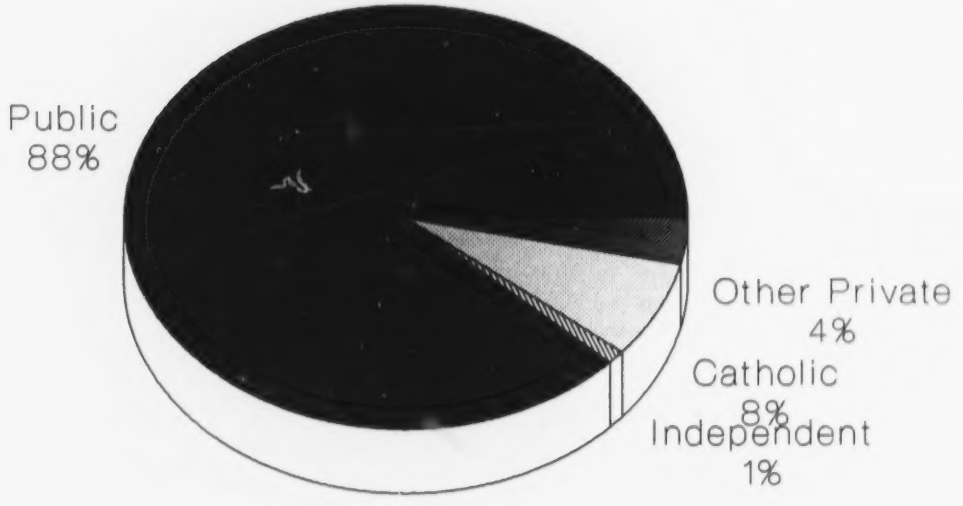
As noted previously, the number of schools attended by American eighth graders is over 38,000. School enrollment ranges from 6 to 3,940, with a median enrollment of 320. This figure is affected by the

Table 1.7--Percentage of eighth graders who are enrolled in various school sectors, by selected background characteristics

Background Characteristics	Public School	Catholic School	Independent School	Other Private School
TOTAL	87.9	7.5	1.0	3.6
SCHOOL GRADE SPAN				
K-8	40.6	46.9	1.1	11.4
K-12	51.8	0.0	10.6	37.6
7-12	89.7	4.9	3.5	1.9
5-8	99.9	0.0	0.1	0.0
6-8	99.9	0.0	0.1	0.0
7-8	98.2	1.1	0.1	0.5
7-9	99.2	0.5	0.1	0.2
URBANICITY				
Urban	77.3	14.1	2.3	6.2
Suburban	87.8	8.1	0.9	3.3
Rural	96.7	1.3	0.1	1.8
GEOGRAPHIC REGION				
Northeast	83.0	12.7	1.8	2.5
North Central	85.8	10.1	0.5	3.6
South	90.9	4.3	1.1	3.7
West	90.1	4.9	0.7	4.3
RACE/ETHNICITY				
Asian and Pacific Islander	83.8	8.8	3.2	4.2
Hispanic	90.5	7.9	0.4	1.2
Black	92.9	5.7	0.5	0.9
White	86.7	7.8	1.1	4.4
American Indian and Native Alaskan	92.0	3.4	0.3	4.3
SES QUARTILE				
Lowest Quartile	96.3	3.0	0.0	0.7
25-49%	90.6	7.3	0.1	2.1
50-75%	86.8	9.0	0.4	3.6
Highest Quartile	78.0	10.7	3.5	7.9
PARENT EDUCATION				
Less than High School	97.5	2.1	0.0	0.4
High School Graduate	91.9	6.2	0.1	1.8
Some College	89.5	7.5	0.3	2.6
College graduate	80.2	11.3	1.9	6.6
MA Degree/equivalent	81.4	8.3	3.3	7.0
PhD Degree/equivalent	68.8	10.8	7.8	12.7
TEST QUARTILE				
Lowest Quartile	94.2	4.3	0.1	1.4
25-49%	90.1	7.0	0.3	2.6
50-75%	85.4	9.4	0.7	4.5
Highest Quartile	81.5	9.7	2.8	6.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Figure 1.3. Percentage of eighth graders enrolled in public and private schools



Source: U.S. Dept. of ED, NELS:88, Base Year

large proportion of private schools in the total, which generally have smaller student bodies than public schools.

Overall, 73 percent of the students are enrolled in middle and junior high schools (grades 5-8, 6-8, 7-8 or 7-9). Fourteen percent are enrolled in K-8 schools, 4 percent in K-12 schools, and 8 percent in 7-12 schools (see appendix A for a distribution of numbers and percentages of students enrolled in schools with different grade spans). Figure 1.4 presents a graphic representation of the distribution of grade spans in eighth-grade schools.

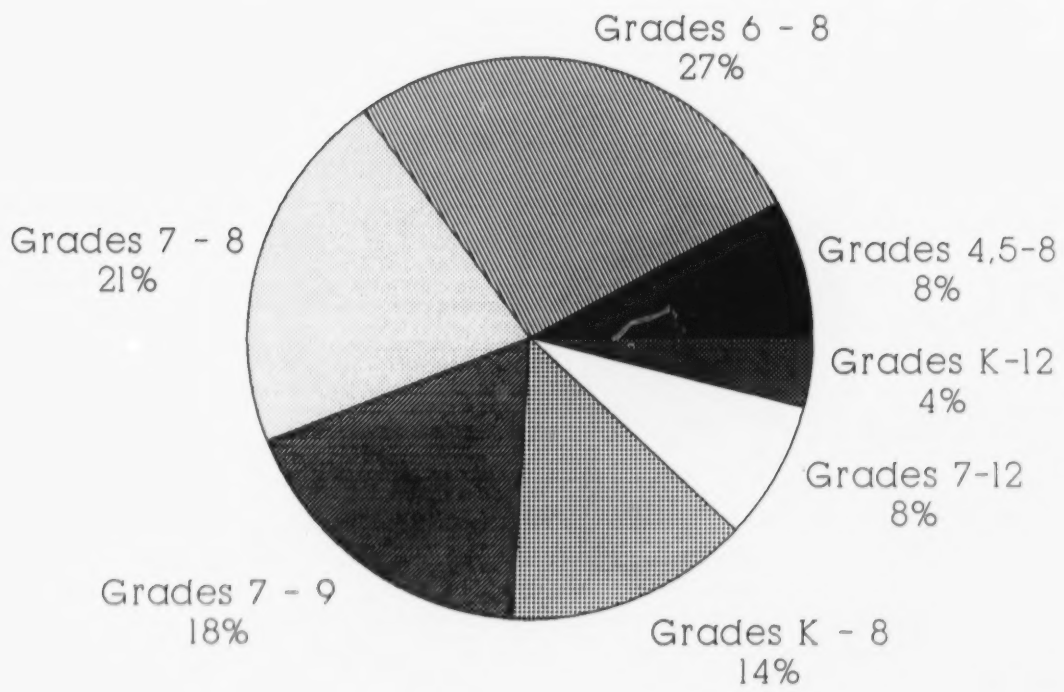
An interesting enrollment pattern emerges when we compare type of school and grade span. Almost all students enrolled in middle and junior high schools (grades 5-8, 6-8, 7-8, or 7-9) are in public schools (99%). This is in contrast to schools with K-8 grade spans, where public schools comprise only about 41 percent of the total enrollment, and Catholic schools comprise 47 percent. Students in K-12 schools are more likely than those in middle or junior high schools to be in independent schools or in other private schools.

Overall, 25 percent of the eighth grade students attend urban schools, 44 percent are in suburban schools, and 31 percent are in rural schools. Rural students overwhelmingly attend public schools (97 percent), while far fewer urban students are enrolled in public schools (77 percent). Students in urban schools are more likely than suburban students and rural students to be in other private schools.

Over 90 percent of Hispanic, black, and American Indian students attend public schools. Asian students are more likely than other subgroups to be enrolled in independent schools. Ninety-six percent of the students in the lowest socioeconomic status (SES) quartile are in public schools, as compared with only 78 percent of highest SES quartile students. Students in the highest SES quartile are more likely than those in the lowest SES quartile to be enrolled in Catholic schools, independent schools, and other private schools.

Almost all students whose parents did not finish high school are in public schools (98 percent). A smaller percentage of those whose parents are college graduates are in public school, compared with those whose parents did not finish high school. Students whose parents obtained master's and Ph.D. degrees are less likely than those with parents who did not finish high school to be in public school. In addition, students with parents who have college degrees are more likely than those with parents who did not finish high school to attend Catholic schools. Students who score in the top 25 percent on the cognitive test are less likely than those who score in the bottom 25 percent of the cognitive test to enroll in public schools. Students who score in the top 25 percent of the cognitive test are more likely than those who score in the bottom 25 percent to attend other private schools.

Figure 1.4. Percentage of eighth graders in schools with various grade spans



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

Chapter 2: Experiences in School

School is a major activity in the lives of adolescents. While there have been previous longitudinal studies of high school students, until now there has not been a national study that reports the educational experiences of elementary or middle school students. This is the first time that a nationally representative portrait of eighth graders' academic experiences, participation in extracurricular activities, and perceptions of school climate can be drawn.

Chapter 2 covers several major topics, the first of which focuses on school outcomes: test scores and grades. This is followed by an overview of the academic courses commonly taken by eighth graders. The next topic examines student participation in extracurricular activities. The last section centers on student reports of school spirit, discipline, and relations with teachers, along with impressions of school safety. Similarities and differences in school experiences are examined by selected subgroups defined by sex, racial or ethnic groups, standardized test quartiles, and grade achievement. Comparisons are also made in terms of school-level variables, such as school type.

How They Are Doing: Test Scores and Grades

One way to determine how eighth graders are doing in school is to examine their achievement on cognitive tests. A series of cognitive tests in mathematics, reading, science, and history and government was designed specifically for the NELS:88 study. For this report, the discussion focuses primarily on results of the mathematics and reading tests.[5] Test results in these two areas are reported by behaviorally-anchored proficiency level scores. Proficiency scores relate meaningful behaviors to various points on a total score scale. Similar scaling procedures are also used with National Assessment of Educational Progress (NAEP) tests. The NELS:88 mathematics test has three levels of proficiency, and the reading test has two levels.

A description of the proficiency scores and examples of mathematics and reading items at various levels are included in appendix C. Sample questions represent the types of tasks students can solve successfully at each level.

Skills in reading and mathematics are assumed to follow a building-block pattern. That is, the skills required to master the basic level are assumed to be necessary to achieve proficiency at a higher level. For example, students proficient at the highest mathematics level (advanced level) can carry out arithmetical operations (such as addition, subtraction, division, and multiplication) on whole numbers (basic level); can carry out operations with

decimals, fractions, percents, and roots (intermediate level); and can also perform problem-solving tasks, including some geometry concepts and simple equations (advanced level). Performance at the advanced level requires, in addition, conceptual understanding or the development of a solution strategy.

Students proficient at the highest level in reading (advanced level) can demonstrate reading comprehension skills which include reproduction of detail and identifying the author's main thought (basic level), and can also make inferences beyond the author's main thought or understand and evaluate relatively abstract concepts (advanced level).

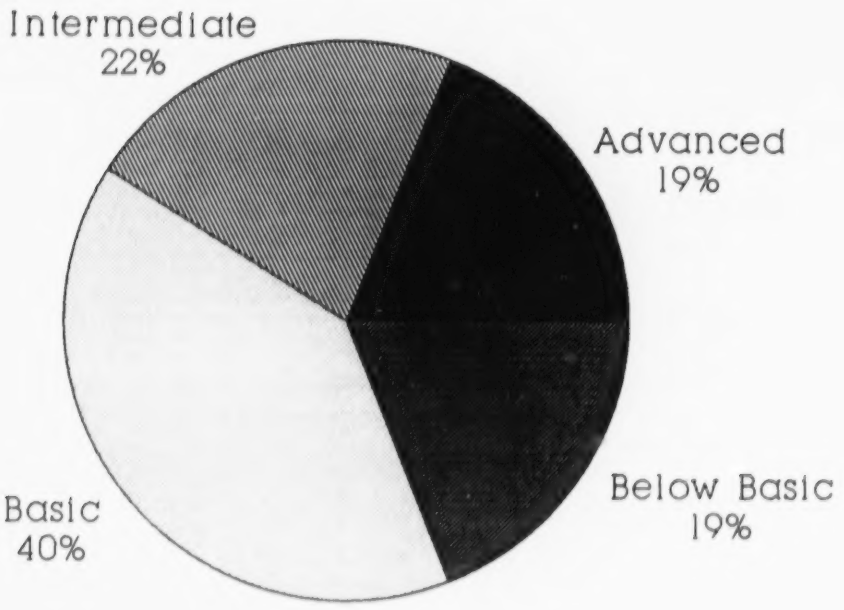
To interpret NELS:88 proficiency scores, we state whether or not a student is at or below a given threshold. For example, when we discuss basic level mathematics performance, we report what percentage of a subgroup is proficient at the basic-level, but is not yet proficient at the intermediate level.[6]

Figure 2.1 presents the percentage of all students who are proficient at each mathematics level. Overall, 19 percent do not show proficiency at the basic level, 40 percent are proficient at the basic level (whole number operations), 22 percent are proficient at the intermediate level (decimals, fractions, and percents) and 19 percent are proficient at the advanced level (simple problem-solving, including geometry and simple equations). It is disconcerting that about 20 percent of American eighth graders do not demonstrate mastery of whole number addition, subtraction, multiplication, and division. Such skills are generally considered necessary to perform everyday tasks. Approximately 41 percent of the eighth graders (22 percent at the intermediate level, plus 19 percent at the advanced level), have at least mastered mathematics material traditionally taught in elementary and junior high school (decimals, fractions, and percents). According to teacher reports, the majority of the eighth grade students are exposed to decimals, fractions, and percents in their classes. On the basis of these reports, one would expect that a higher number of students would successfully solve these types of problems.

Only about 41 percent of the eighth graders have mastered mathematics material traditionally taught in elementary and junior high school.

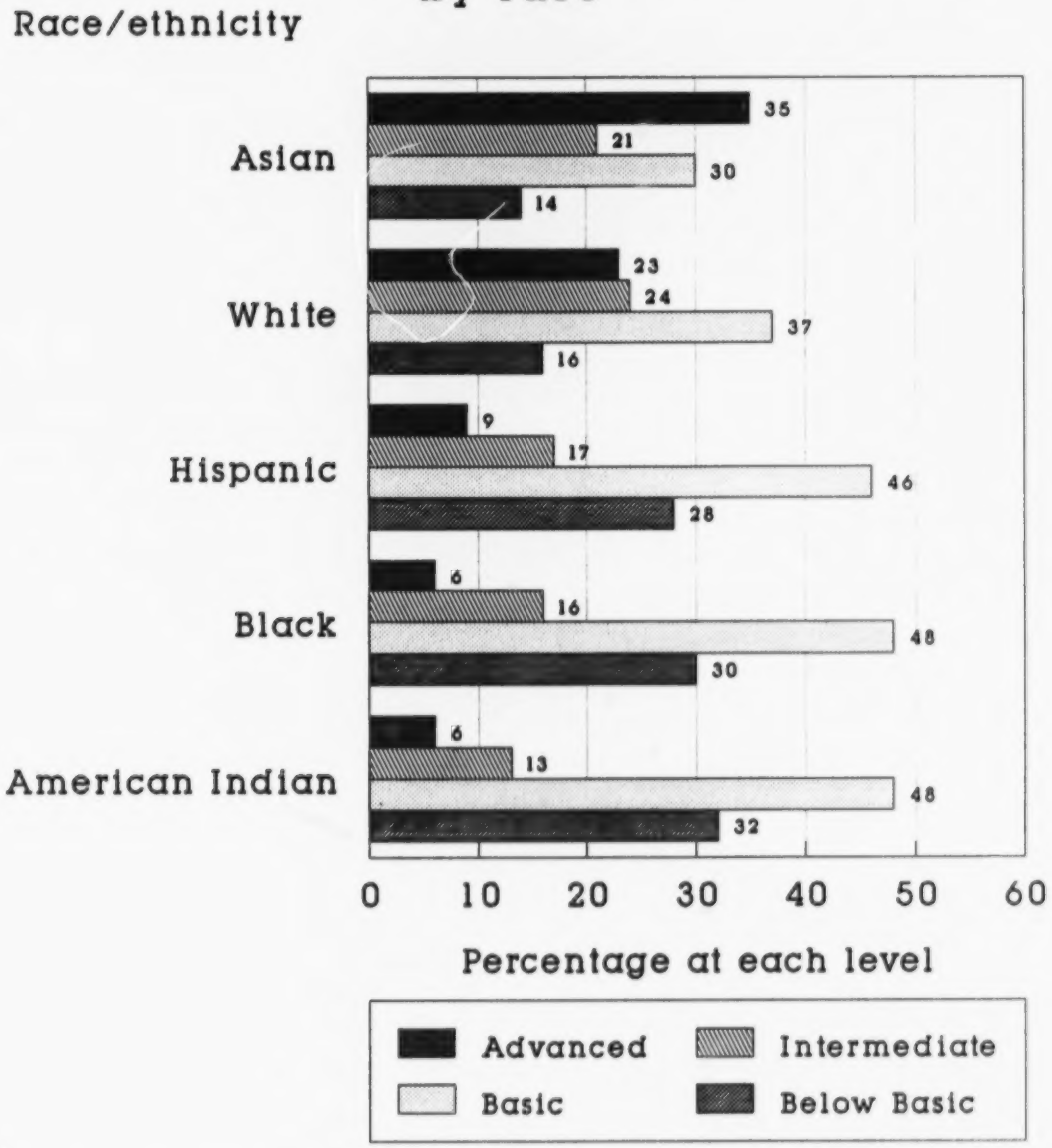
Figure 2.2 displays the percentage of white, Asian, Hispanic, black, and American Indian subgroups who are proficient at various levels. As figure 2.2 indicates, there appear to be large racial and ethnic differences between levels of mathematics proficiency. Three-quarters of Hispanics (28 + 47 percent) and three-quarters of blacks (29 + 49 percent) do not demonstrate mastery of simple operations

Figure 2.1. Percentage of all students proficient at each mathematics level



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

Figure 2.2. Percentage of eighth graders proficient at each mathematics level, by race



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

using decimals and fractions (intermediate level). The largest group differences are seen at the highest level, where items require problem-solving skills or conceptual understanding. Asian students clearly are over-represented at this level and far outscore all other groups.

Results for reading are somewhat more encouraging than those for mathematics. Figure 2.3 presents the reading-level proficiency profile for all students. Overall, 14 percent of students score below the basic proficiency level, 52 percent are proficient at the basic level, and 34 percent are proficient at the advanced level. The majority of eighth graders can find information in the text, reproduce detail, and comprehend the author's main thought.

However, many have difficulty mastering complex reading skills such as inferring beyond the author's main thought, showing understanding, or evaluating concepts (skills at the advanced level).

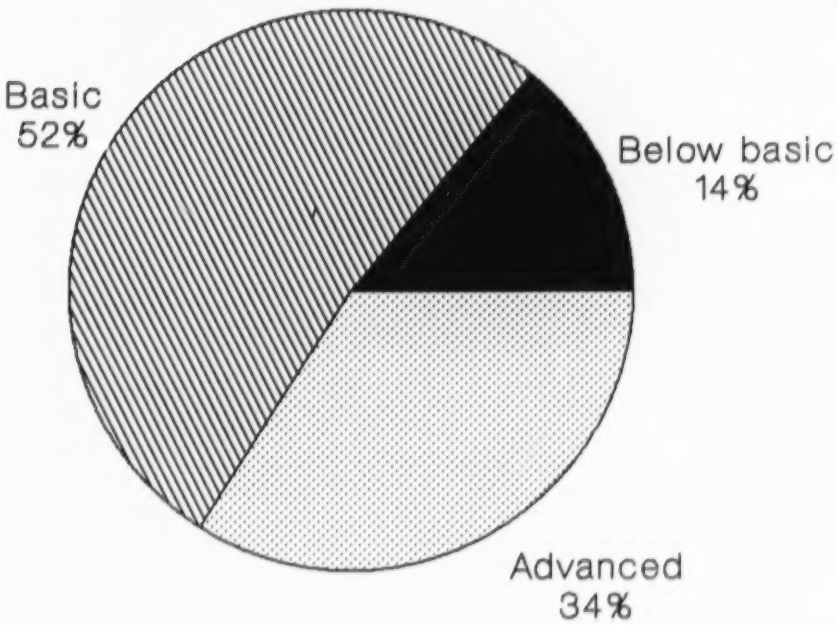
As with mathematics, the reading test scores show considerable differences among racial/ethnic groups and among students speaking various languages, particularly at the advanced level (inference). As seen in table 2.2, the percentage of white and Asian students who demonstrate proficiency at the advanced (inference) level is double that of the Hispanic and black students. The percentage of both blacks and Hispanics who score below the basic level is double that of white students.

About 30 percent of students who usually speak Spanish are unable to show basic reading proficiency.

Other studies (High School & Beyond and NAEP) have shown that performance gaps among races have narrowed over time, particularly for black students.[7] However, the gaps between racial/ethnic subgroups remain fairly large. The continuing evidence of students' lack of success at high-level skills suggests that changes in academic programs, curriculum, and instruction may be necessary to improve the situation, especially for at-risk students.

Tables 2.1 and 2.2, and figure 2.4 show the percentage of students in various racial/ethnic and language groups who are proficient at each mathematics and reading proficiency level. As can be seen in tables 2.1 and 2.2, about 30 percent of students who usually speak Spanish or another non-English language score below the basic proficiency level in math and below the basic level in reading. Few students who usually speak Spanish or another language score at the advanced level in reading. These students may be at high risk of school failure. Interestingly, those who usually speak a language other than English or Spanish are more likely than those who speak English or those who speak Spanish to show proficiency at the

Figure 2.3. Percentage of all students proficient at each reading level



SOURCE: U.S. Dept. ED., NCES, NELS:88 BY

Table 2.1.--Percentage of students in various racial/ethnic and language groups who are proficient at each mathematics proficiency level

Student Characteristics	Below Basic	Basic	Intermediate	Advanced
TOTAL	18.8	40.2	22.1	18.8
RACE/ETHNICITY				
Asian and Pacific Islander	13.4	30.7	21.2	34.7
Hispanic	27.6	46.8	16.9	8.7
Black	28.9	49.4	16.5	5.3
White	15.5	37.9	24.3	22.4
American Indian and Native Alaskan	32.3	49.8	13.0	4.8
LANGUAGE GROUPS				
Usually speaks English	18.3	40.1	22.4	19.2
Usually speaks Spanish	34.4	43.0	14.4	8.1
Usually speaks other languages	28.9	30.0	14.1	27.0

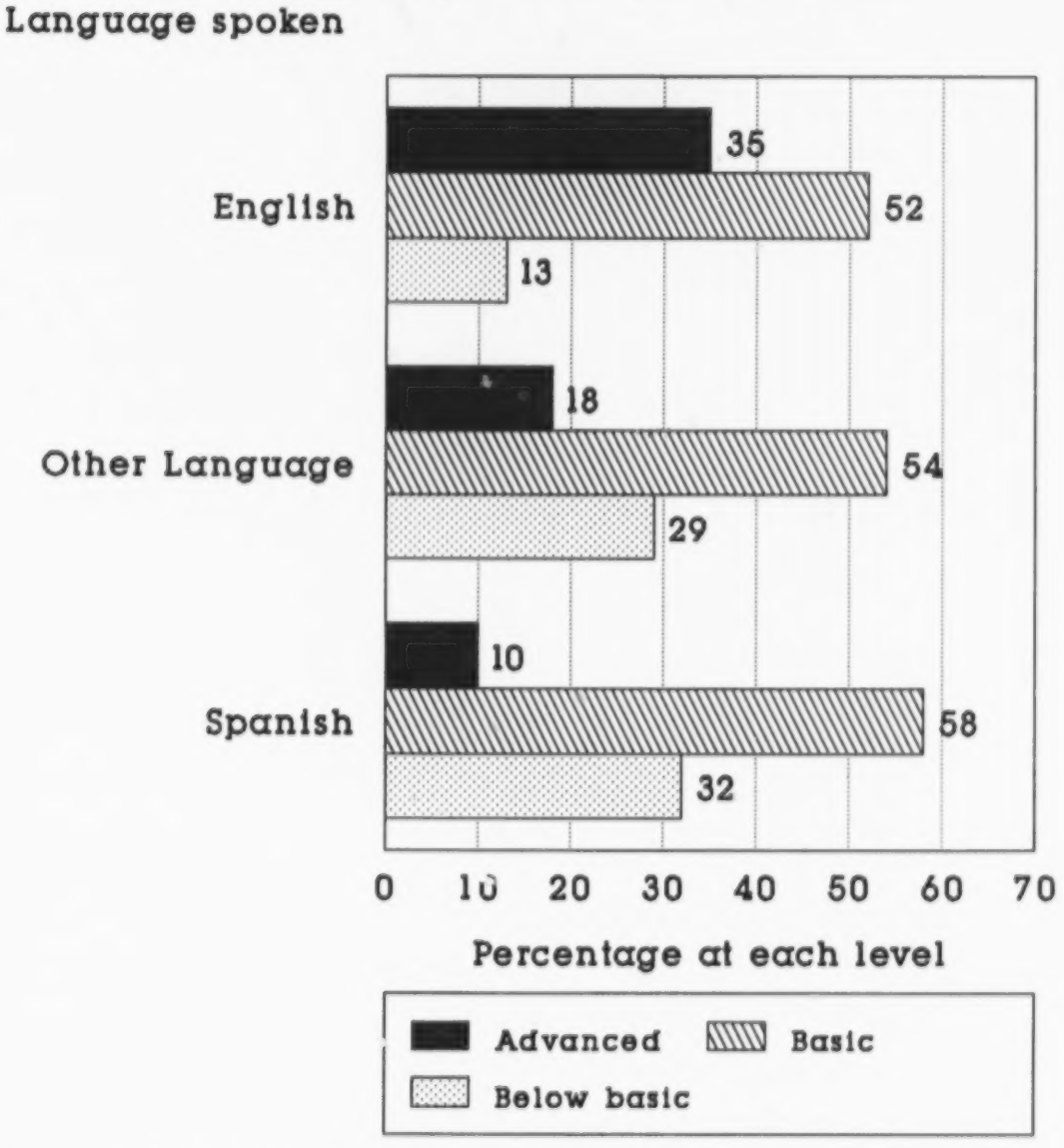
SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Table 2.2.--Percentage of students in various racial/ethnic and language groups who are proficient at each reading proficiency level

Student Characteristics	Below Basic	Basic	Advanced
TOTAL	13.7	52.4	34.0
RACE/ETHNICITY			
Asian and Pacific Islander	14.8	47.3	37.9
Hispanic	21.0	58.6	20.5
Black	23.6	58.1	18.3
White	10.4	50.7	38.9
American Indian and Native Alaskan	27.3	57.4	15.4
LANGUAGE GROUP			
Usually speaks English	13.1	52.2	34.7
Usually speaks Spanish	32.5	57.7	9.9
Usually speaks other languages	28.6	53.8	17.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Fig. 2.4. Percentage of eighth graders proficient at each reading level, by language usually spoken



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

advanced level in math (these are primarily Asian students).

A socioeconomic status (SES) composite scale score made up of father's and mother's education level, father's and mother's occupation and family income was computed for each student. Large socioeconomic status group differences in reading and mathematics achievement are seen.

When socioeconomic status is taken into account, average majority-minority group differences in mathematics and in reading are reduced by about 25 to 30 percent for blacks, Hispanics and American Indians. In addition, students in the top 25% of socioeconomic status are eight times as likely as those in the bottom 25% to show proficiency at the advanced mathematics level (39 percent vs. 5 percent).

As seen in figure 2.5, among students in the bottom 25% of socioeconomic status, 18 percent of Asians, 7 percent of whites, 4 percent of Hispanics and 2 percent of blacks are proficient at the advanced mathematics level. As seen in figure 2.6, among students in the bottom 25 percent of socioeconomic status, about one quarter of Asians, Hispanics and blacks and 17 percent of whites fail to show basic reading skills.

Table 2.3 presents student reports of their grades (categorized into quartiles) from grade six until grade eight by various student background characteristics. Females are more likely than males to report receiving grades which rank them in the highest quartile. Almost a third of females are classified as being in the highest quartile, while only a quarter of the males are in the same group. At the other extreme, only 21 percent of females report receiving grades that classify them in the lowest quartile, whereas 29 percent of males report receiving grades that place them in this same category.

Asians were much more likely than other racial and ethnic groups to report receiving grades in the highest grade quartile. American Indians are more likely than Asians to report receiving grades that place them in the lowest quartile.

There are differences in grade quartiles with respect to the amount of time students spend on homework each week. Students who spend 10 1/2 hours or more on homework per week are significantly more likely than those spending 3 hours or less to be classified in the highest grade quartile.

A majority (62 percent) of the eighth graders who are classified in the highest test composite quartiles are also in the highest grade composite quartile. Forty-six percent of those students who are in the lowest test composite quartile also report receiving grades which place them in the lowest grade quartile.

Fig. 2.5. Percent of eighth graders in low & high SES groups who are proficient in advanced mathematics, by race

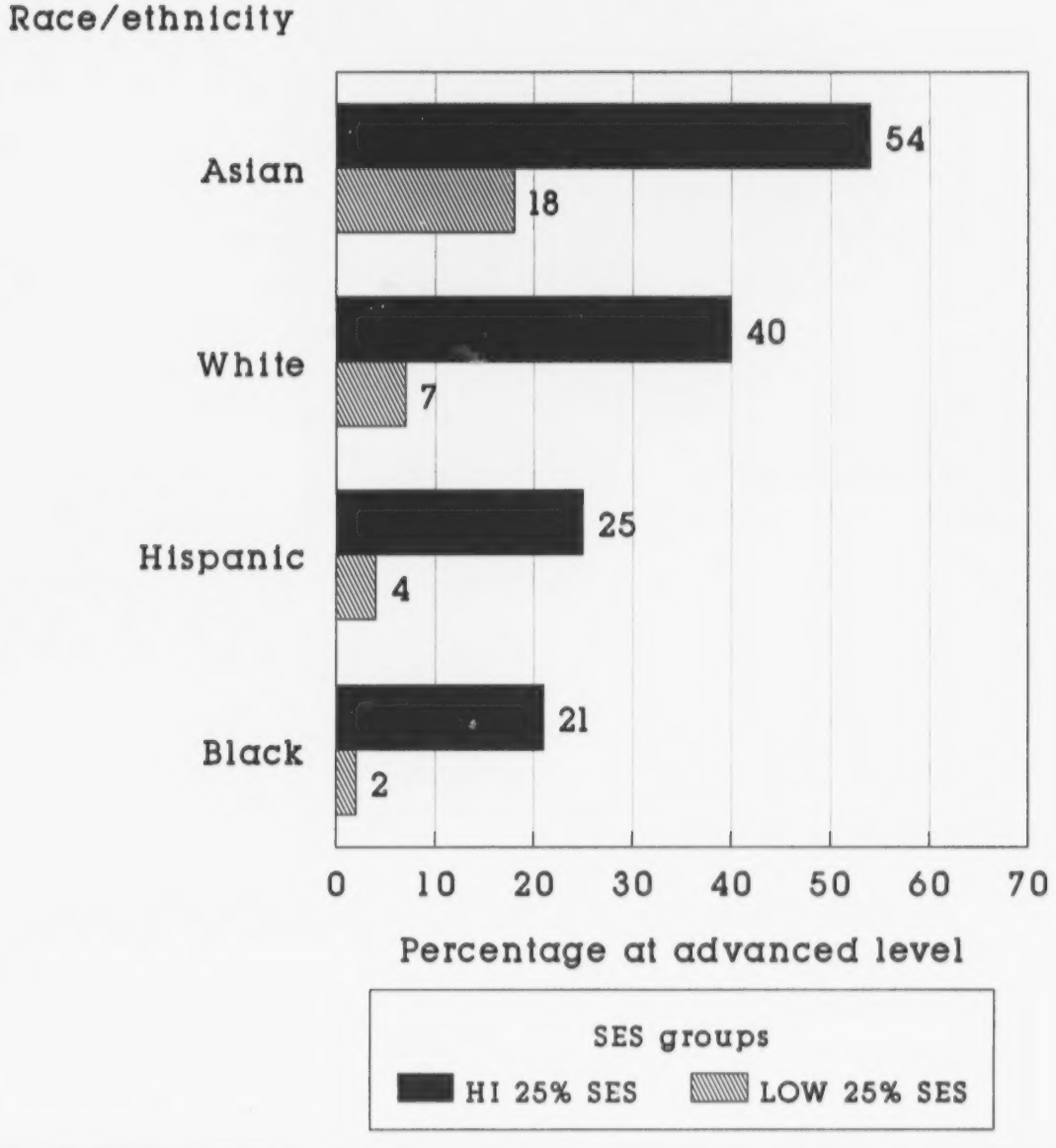
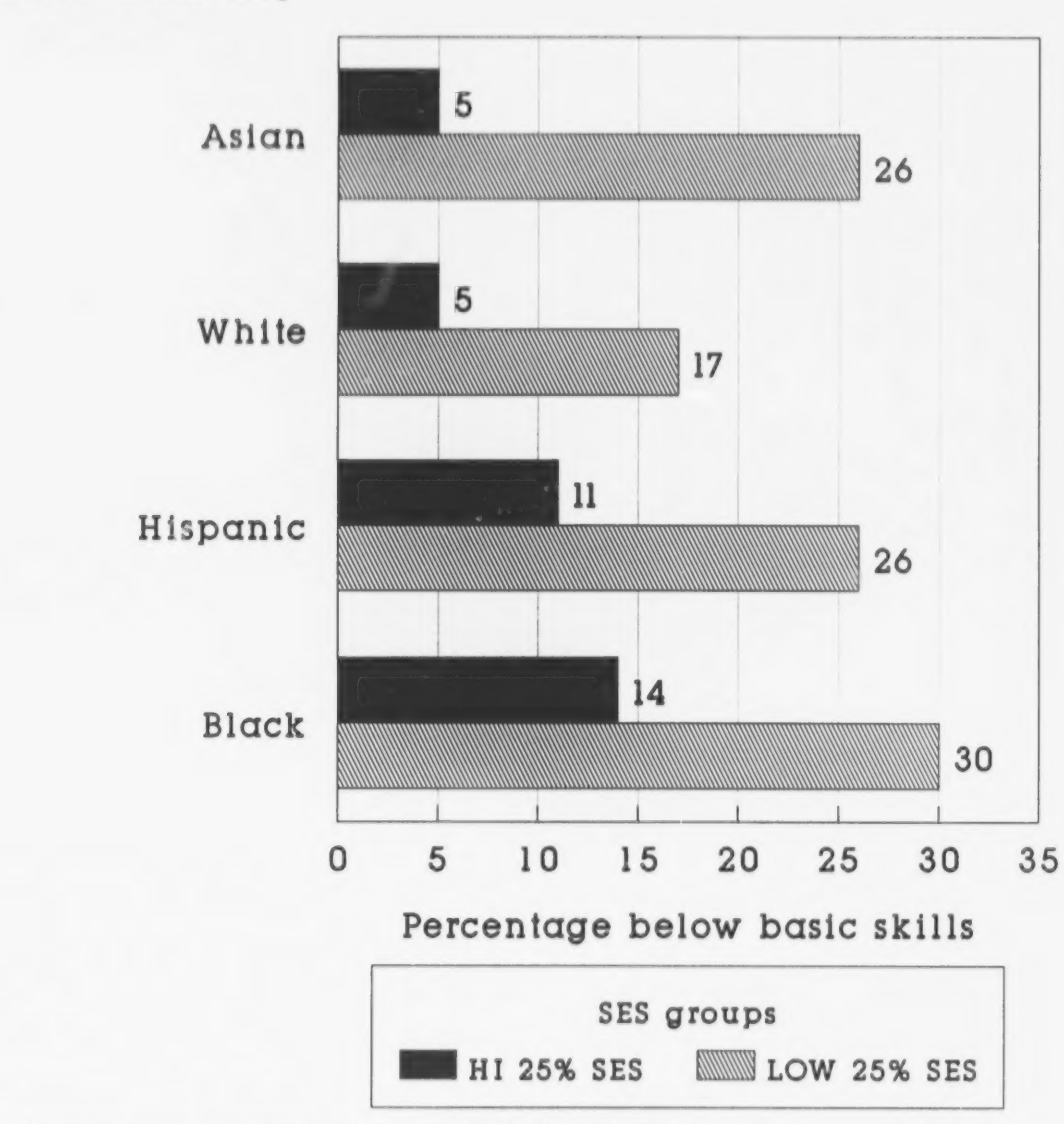


Fig 2.6. Percentage of eighth graders in low & high SES groups who fail to show basic reading skills, by race



Source: U.S. Dept. of ED, NELS:88, Base Year

Table 2.3.--Percentages of eighth graders classified into selected quartiles based on self-reported grades from grade six until grade eight, by selected background characteristics

Student Characteristics	Grade Quartiles: Lowest Quartile	25-49%	50-74%	Highest Quartile
TOTAL	24.9	22.2	24.6	28.3
SEX				
Male	28.7	22.6	23.7	25.0
Female	21.1	21.9	25.5	31.5
RACE/ETHNICITY				
Asian and Pacific Islander	16.5	16.2	21.3	46.1
Hispanic	30.6	24.5	25.2	19.7
Black	28.8	28.3	26.3	16.6
White	23.4	20.9	24.4	31.2
American Indian and Native Alaskan	36.7	27.6	23.1	12.6
HOMEWORK PER WEEK				
None	48.0	16.6	17.8	17.6
Less than 2 Hours	31.1	23.5	21.9	23.5
2-2.99 Hours	29.0	23.5	24.3	23.3
3-5.49 Hours	23.1	23.9	26.1	26.9
5.5-10.49 Hours	18.9	20.7	24.1	36.2
10.5-12.99 Hours	16.5	17.4	25.5	40.6
13-20.99 Hours	15.8	16.5	27.4	40.2
21 or more Hours	16.7	18.1	26.2	39.1
TEST COMPOSITE QUARTILE				
Lowest Quartile	45.6	27.8	19.7	6.8
25-49%	31.4	29.3	25.7	13.6
50-74%	17.9	22.0	30.5	29.6
Highest Quartile	4.6	9.9	22.2	62.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

What Courses They Enroll In

Most eighth graders are enrolled in four core academic courses: English, mathematics, science, and social studies or history.[8] Only a small percentage of students report not being enrolled in the core courses: English, 4 percent; math, 2 percent; science, 4 percent; and, neither history nor social studies, 4 percent. Various course options are available to students who enroll in courses which cover a given subject area. For example, a math course may be classified as remedial math, regular math, honors or advanced math or algebra, and a science course may or may not include a laboratory. Percentages of students enrolled in specific classes are only reported here for mathematics, English, and science.

1. *Mathematics Course-taking*

Although the majority of students (58 percent) report enrolling in regular math, about one-third of students report being enrolled in more academically demanding courses. This group includes pre-algebra, algebra, advanced or honors classes, along with those reporting taking algebra along with a regular math class. Only 5 percent report being enrolled in remedial math. Two-and-a-half percent report taking no math. These figures are presented in table 2.4.[9]

Gender differences in mathematics course enrollments are small, with about equal percentages of males and females taking each level of math classes. There are, however, some significant differences in course-taking by racial and ethnic groups.

Asians report attending advanced math or algebra in higher percentages than other students. There are virtually no differences among blacks, whites, Hispanics, and American Indian enrollments in regular math (Hispanics, 62 percent; blacks, 60 percent; whites, 58 percent; American Indians, 57 percent). Because Asians report enrolling in larger numbers in advanced math or algebra, they are less likely than other ethnic groups to report enrolling in regular math.

Students enrolled in independent schools are more likely than those in other types of schools to report enrolling in an algebra class.

Differences in math course-taking can also be related to standardized math test scores. Those students who score in the lowest quartile on the standardized math test are more

Table 2.4.--Percentage of eighth graders who report enrolling in various math courses or combinations of math courses, by selected background characteristics

Background Characteristics	Course Enrollment			
	Advanced Math/ Algebra 2/	Regular Math	Remedial Math 3/	No Math
TOTAL[1]	32.2	58.4	5.2	2.5
SEX				
Male	31.8	57.3	6.2	2.7
Female	32.7	59.5	4.3	2.3
RACE/ETHNICITY				
Asian and Pacific Islander	46.1	41.7	5.5	4.4
Hispanic	24.4	61.6	7.8	3.8
Black	26.3	60.5	7.3	3.2
White	33.9	58.5	4.4	2.0
American Indian and Native Alaskan	26.3	57.2	8.4	4.4
MATH TEST QUARTILE				
Lowest Quartile	11.1	69.6	11.3	4.8
25-49%	18.3	71.6	5.7	2.8
50-74%	33.7	60.6	3.0	1.7
Highest Quartile	63.3	34.1	0.9	0.9
MATH HOMEWORK				
None	18.3	63.3	10.6	4.6
Less than 1 hour	25.2	65.0	5.3	2.7
1 Hour	32.4	58.9	5.0	2.2
2 Hours	40.8	52.4	3.9	1.5
3 Hours	49.1	45.2	2.6	1.8
4-6 Hours	58.9	36.7	2.2	1.2
7-9 Hours	66.4	29.7	1.5	0.6
10 or more Hours	55.8	33.7	2.1	4.9
SCHOOL TYPE				
Public	31.2	59.8	5.2	2.5
Catholic	31.7	53.3	7.0	2.5
Independent	69.6	25.3	2.7	1.2
Other Private	48.0	45.7	1.9	2.0

[1]Percents do not add to 100 percent because 2 percent of students gave questionable responses and were excluded from the table (e.g, reported taking both algebra and remedial math). There were differential response rates across categories, especially for racial/ethnic groups, and test quartile.
[2]Includes pre-algebra, advanced or honors classes, algebra, and those reporting algebra and a regular math course.
[3]Includes remedial math only and remedial math and regular math courses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

likely than those in the highest quartile to enroll in remedial math. Those students who score in the highest quartile are more likely than those in the bottom quartile to be enrolled in advanced math or algebra.

In terms of school type, table 2.4 illustrates that independent school students are more likely to report enrolling in advanced math or algebra, compared to students in other types of schools. Advanced math, usually beginning with high school algebra, is often viewed as an integral part of a college preparatory program.

2. ***Science Course-taking***

With regard to science course-taking, 96 percent of eighth graders report enrolling in some type of science course (table 2.5). While 22 percent of students report taking a science course with a laboratory, 74 percent report attending a science course without a laboratory. Four percent report taking no science at all.

Gender differences in science class enrollment are small and non-significant. Asians are more likely than Hispanics and blacks to be enrolled in science classes with laboratories.

As indicated in table 2.5, students enrolled in independent schools are far more likely than other students to enroll in science classes with laboratories.

3. ***English Course-taking***

As seen in table 2.6, 84 percent of eighth graders report enrolling in regular English classes, and another 12 percent report taking remedial English, either by itself or with regular English. Four percent of the eighth graders sampled report not enrolling in any English class. More females than males are enrolled in regular English. Males are more likely than females to be enrolled in remedial English.

Whites are more likely than other ethnic groups to enroll in regular English. Hispanics are more likely than whites and blacks to be enrolled in remedial English. Those students in the lowest standardized test quartile are twice as likely as those in the highest test quartile to be enrolled in remedial English class. Eighteen percent of those in the lowest test quartile are in remedial English, while only 8 percent of those in the highest quartile are in this type of course.

Students scoring in the lowest quartile of the reading test are more likely not to be enrolled in any

Table 2.5.--Percentage of eighth graders who report enrolling in science course with laboratory, science course without laboratory, or no science course, by selected background characteristics

Background Characteristics	Course Enrollment		
	Science Course with Laboratory	Science Course without Laboratory	No Science
TOTAL	21.5	74.2	4.4
SEX			
Male	22.1	73.4	4.5
Female	20.9	74.9	4.3
RACE/ETHNICITY			
Asian and Pacific Islander	25.1	65.7	9.3
Hispanic	19.2	72.5	8.3
Black	19.5	74.4	6.0
White	21.9	74.8	3.2
American Indian and Native Alaskan	21.2	73.4	5.3
SCIENCE TEST QUARTILE			
Lowest Quartile	19.1	74.0	6.9
25-49%	18.9	76.8	4.4
50-74	21.1	75.7	3.2
Highest Quartile	25.6	72.4	2.0
SCIENCE HOMEWORK			
None	19.3	68.7	12.0
Less than 1 Hour	20.5	76.7	2.7
1 Hour	22.5	75.1	2.5
2 Hours	24.2	73.6	2.1
3 Hours	26.4	71.4	2.2
4-6 Hours	29.5	68.1	2.4
7-9 Hours	28.3	69.7	2.0
10 Hours or more	35.3	64.4	0.3
SCHOOL TYPE			
Public	21.5	73.9	4.6
Catholic	18.6	79.1	2.3
Independent	48.0	48.1	3.9
Other Private	21.5	76.1	2.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Table 2.6.--Percentage of eighth graders who report enrolling in regular English, remedial English, or no English course, by selected background characteristics

Background Characteristics	Course Enrollment		
	Regular English	Remedial English 1/	No English
TOTAL	83.7	12.1	4.2
SEX			
Male	81.6	13.8	4.6
Female	85.8	10.4	3.8
RACE/ETHNICITY			
Asian and Pacific Islander	81.0	14.6	4.4
Hispanic	76.4	17.2	6.4
Black	80.7	11.3	8.0
White	85.6	11.3	3.1
American Indian and Native Alaskan	74.4	15.4	10.2
READING TEST QUARTILE			
Lowest Quartile	73.1	17.9	9.1
25-49%	82.4	12.9	4.7
50-74%	87.4	10.4	2.2
Highest Quartile	91.0	7.9	1.1
ENGLISH HOMEWORK			
None	80.1	12.7	7.2
Less than 1 Hour	83.8	12.0	4.2
1 Hour	84.0	12.3	3.7
2 Hours	85.9	11.2	2.8
3 Hours	88.0	9.4	2.7
4-5 Hours	86.8	10.7	2.5
7-9 Hours	82.7	14.1	3.2
10 Hours or more	76.5	21.1	2.4
SCHOOL TYPE			
Public	84.6	11.0	4.4
Catholic	73.4	23.4	3.2
Independent	85.4	13.7	0.9
Other Private	83.2	15.0	1.8

'Includes Remedial English alone and Remedial in addition to Regular English

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

English course than students categorized into quartiles two through four. Those in the highest quartile are more likely than those in the lowest quartile to be enrolled in regular English.

As seen in table 2.6, Catholic school students are twice as likely to take remedial English as compared with public school students, other private and independent school students. Catholic school students are less likely than other students to be enrolled in regular English classes.

What Extracurricular Activities They Participate In

The school lives of children are not limited to their academic experiences, but include time spent in school-based extracurricular activities. Extracurricular activities are those clubs, teams, and groups that students generally participate in during the hours before, during, or after school. This section presents some basic findings about student extracurricular activities in school. Table 2.7 shows that the most popular extracurricular activities reported by students are varsity sports (48 percent participating), intramural sports (43 percent participating), band/chorus (40 percent participating), drama/dance (31 percent participating), science fair (28 percent participating), and newspaper/yearbook (22 percent participating). Again, it is important to note that student reports of activities may be inflated. For example, it is unlikely that 48 percent of eighth grade students participate in varsity sports. The notion of "varsity sports" at the eighth grade level may not be the same as the perception we have of varsity sports at the high school level.

Sports programs have the largest percentage of student participation, with 48 percent of students reporting participating in varsity and 43 percent participating in intramural sports. Males tend to report participating in these sports more often than females, with 54 percent of males and 42 percent of females reporting participating in varsity sports. This same pattern occurs for intramural sports. Forty-seven percent of males and 38 percent of females report participating in intramural sports. Females are more likely than males to participate in band/chorus, and drama/dance.

Students in the highest grade quartile are more likely than students in the lowest grade quartile to report participating in any of the extracurricular activities. This finding is not altogether surprising, since many schools have regulations that mandate specific grade requirements for participation in school-based extracurricular activities, and some students in the lowest grade quartiles may be ineligible for participation.

Table 2.7 also illustrates enrollment in activities by school type. Students

Table 2.7.--Percentage of eighth graders who report participating in various school-based extracurricular activities, by selected background characteristics.

Background Characteristics	Activity					
	School Varsity Sports	Intramural Sports	Band/ Orchestra/ Chorus	Dance/ Drama	Science Fairs	Student Newspaper/ Yearbook
TOTAL	47.9	42.5	39.8	31.4	28.3	21.5
SEX						
Male	53.8	46.9	30.9	27.1	28.5	19.6
Female	42.1	38.2	48.3	35.5	28.1	23.4
RACE/ETHNICITY						
Asian and Pacific Islander	43.1	47.3	36.5	32.2	29.4	24.7
Hispanic	44.4	39.5	31.1	30.7	22.9	20.5
Black	48.3	45.0	42.2	30.9	33.8	27.5
White	48.4	42.2	40.9	31.5	27.9	20.5
American Indian and Native Alaskan	46.6	44.2	31.4	28.9	31.5	21.0
GRADES						
Lowest Quartile	39.6	35.0	32.2	28.1	21.6	16.9
25-49%	46.8	41.2	38.2	31.0	26.5	20.2
50-74%	50.5	44.4	41.0	32.4	29.2	21.1
Highest Quartile	53.4	48.0	46.2	33.5	34.4	26.6
SCHOOL TYPE						
Public	46.1	41.6	40.7	31.7	26.5	19.5
Catholic	60.9	46.3	27.8	30.4	39.4	39.7
Independent	68.4	56.6	42.6	35.6	31.2	28.0
Other Private	56.7	51.4	42.2	25.8	46.4	29.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

attending independent schools are significantly more likely than students in public schools to participate in varsity sports or intramural sports. Catholic school students are more likely than public school students to participate in science fairs and to belong to newspaper/yearbook clubs.

Student Impressions of School Climate and School Safety

Literature on effective schools shows that positive factors of school climate (e.g. the presence of school spirit, discipline and order in the school, and caring teachers who listen to and encourage students) add to the effectiveness of the school in fulfilling its educational mission. Students were asked to respond to a number of statements about school climate and school safety.

Table 2.8 shows that, for seven indicators of positive school climate, more than 60 percent of the eighth graders agree that their school experience is positive. Eighty percent agree that the teaching in their schools is good. Seventy-five percent feel that the teachers are interested in the students. However, there are some differences in perceptions of school climate with respect to racial and ethnic groups.

Blacks are less likely than Asians, Hispanics, or whites to report that students and teachers get along in their schools. Furthermore, blacks are significantly less likely than Asians, Hispanics, or whites to report that discipline is fair in their schools. American Indians are less likely than Asians or Hispanics to report that discipline is fair.

A majority of eighth graders agree that their school experience is positive. But some different in perceptions of school climate exist with respect to racial/ethnic groups and students with various behavior problems.

Students with grades in the top quartile are more likely than those with grades in the bottom quartile to report that students and teachers get along; that there is real school spirit; that discipline is fair; that the teaching is good; that teachers are interested in students; that teachers praise student efforts; and that teachers really listen to students.

Similarly, students who are hardly ever or never tardy or absent generally express more positive school experiences than students who have been absent or tardy more than three times. Students who are never tardy are more likely than those who are tardy 3 or more days to agree with statements that students and teachers get along, there is school spirit, discipline is fair, and teachers really listen to them. In a similar vein, students who are never absent are more likely than those who

Table 2.8.--Percentage of eighth graders agreeing or strongly agreeing with various statements about their schools, by selected background characteristics

Background Characteristics	Students & Teachers Get Along	There is Real School Spirit	Discipline is Fair	The Teaching is Good	Teachers are Interested in Students	Teachers Praise my Effort	Teachers Really Listen to me
	Statements About Schools						
TOTAL	67.1	68.6	69.1	80.2	75.2	63.3	68.4
SEX							
Male	67.6	67.2	67.3	78.9	74.9	63.0	66.9
Female	66.5	69.9	70.9	81.5	75.6	63.5	69.9
RACE/ETHNICITY							
Asian and Pacific Islander	73.0	66.7	72.5	83.4	78.6	70.8	74.9
Hispanic	66.4	64.9	70.7	81.3	76.8	70.7	70.6
Black	60.5	65.0	65.0	80.0	76.6	72.1	73.3
White	68.2	69.8	69.7	80.0	74.7	60.3	67.1
American Indian and Native Alaskan	65.2	67.4	63.5	76.7	68.5	63.3	62.1
SES QUARTILE							
Lowest Quartile	64.3	67.9	67.1	78.8	74.0	66.8	68.9
25-49%	65.5	69.5	68.0	79.0	74.3	62.3	66.8
50-74%	67.0	68.4	68.6	80.0	75.2	61.0	67.1
Highest Quartile	71.5	68.7	72.7	83.0	77.4	63.0	70.9
GRADES							
Lowest Quartile	57.1	63.1	60.6	71.9	66.7	56.4	58.3
25-49%	64.4	68.2	67.2	79.2	72.7	61.9	66.1
50-74%	70.2	69.9	71.9	82.8	77.0	64.6	70.8
Highest Quartile	75.2	72.6	75.6	86.2	83.0	68.9	77.0
SCHOOL DAYS MISSED							
None	70.4	71.8	71.4	83.1	78.0	64.7	71.5
1 or 2 Days	66.3	68.1	69.4	80.0	74.5	63.1	68.0
3 or more Days	61.6	63.5	64.5	75.1	70.8	59.5	62.6
TIMES LATE FOR SCHOOL							
None	70.3	71.7	72.4	82.9	77.8	64.2	71.4
1 or 2 Days	64.7	66.4	66.9	78.9	73.2	62.7	65.5
3 or more Days	55.5	58.2	57.4	69.9	66.1	57.6	58.3
SCHOOL TYPE							
Public	65.6	68.1	68.9	79.6	73.9	62.3	67.5
Catholic	75.4	70.5	69.4	82.9	83.0	66.9	73.3
Independent	85.9	77.3	77.2	92.7	89.6	79.1	80.2
Other Private	79.0	73.1	71.4	87.2	87.8	73.7	77.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

missed 3 or more school days to report that students and teachers get along, that there is real school spirit, that discipline is fair, and that teachers really listen to them.

Independent school students are more likely than public school students to agree that students and teachers get along, discipline is fair, the teaching is good, teachers praise their efforts, and teachers really listen to them. Independent school students also are more likely than Catholic school students to report that discipline is fair, that the teaching is good, and that teachers praise their efforts.

One factor that could relate to student motivation, academic performance, and participation in school activities is the general behavior of other students in school and the school's safety climate. Eighth graders were asked to report on various safety-related occurrences in their schools, and an examination of their responses (table 2.9) is enlightening. The five situations students report on were fighting with another student, something being stolen from them, someone offering to sell them drugs, someone threatening to hurt them, and not feeling safe at school. Overall, about one-half of the eighth graders report that something was stolen from them at school. Twenty-eight percent report someone threatened to hurt them, 23 percent admitted they had fought with another student, 12 percent reported they did not feel safe at school, and 10 percent reported that someone offered to sell them drugs at school. These numbers indicate that safety may be a considerable concern in some of the schools eighth graders attend.

There are some subgroup differences in perceptions of school safety. Males are more likely than females to report all of these occurrences. The largest difference between the sexes is "I fought with another student"--boys are three times as likely as girls to report fights.

Safety may be a considerable concern in some of the schools our eighth graders attend.

Students in the lowest socioeconomic status (SES) quartile are more likely than students in the highest SES quartile to report the following occurrences: something stolen, fought with a student, don't feel safe, offered drugs.

Public school students are far more likely than Catholic school students, other private or independent school students to report fights, someone threatened to hurt them, that they don't feel safe at school, and that someone offered to sell them drugs. Interestingly, students in independent schools are as likely as public school students to report that something was stolen from them.

Urban students are more likely than suburban students to report fights,

Table 2.9--Percentages of eighth graders reporting various safety-related occurrences in their school, by selected background characteristics

Background Characteristics	I Fought with a Student	Something was Stolen from Me	Someone Offered to Sell Me Drugs	Someone Threatened to Hurt Me	I Don't Feel Safe at School
TOTAL	22.5	49.1	10.0	27.8	11.8
SEX					
Male	33.9	52.1	12.2	33.0	13.3
Female	11.3	46.1	7.9	22.7	10.4
RACE/ETHNICITY					
Asian and Pacific Islander	18.9	47.9	4.8	21.3	11.7
Hispanic	25.3	49.1	14.3	23.0	16.1
Black	30.3	57.5	7.6	24.9	18.0
White	20.6	47.6	9.9	29.3	9.9
American Indian and Native Alaskan	36.6	52.1	16.4	24.4	18.0
SES QUARTILE					
Lowest Quartile	30.7	50.9	11.8	28.2	15.3
25 - 49%	23.8	50.7	10.1	29.4	13.4
50 - 75%	20.3	48.7	10.4	27.6	10.9
Highest Quartile	15.6	46.3	7.7	25.9	7.9
SCHOOL TYPE					
Public	23.2	50.2	11.0	29.2	12.5
Catholic	18.4	41.0	2.6	17.3	7.6
Independent Private	16.2	51.7	6.6	18.9	5.7
Other Private	16.4	38.2	2.4	18.7	5.9
URBANICITY					
Urban	24.7	51.8	10.4	27.0	15.3
Suburban	21.3	47.0	10.3	27.2	10.7
Rural	22.5	49.9	9.4	29.2	10.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

something was stolen, and that they don't feel safe at school. Urban and suburban students did not differ on "someone offered to sell me drugs" and "someone threatened to hurt me." Urban students are more likely than rural students to report they don't feel safe. Rural students are more likely than urban students to report someone threatened to hurt them.

Racial/ethnic differences in perceptions of school safety are also apparent. Blacks and American Indians are more likely than Asians, Hispanics, or whites to report they fought with another student. Blacks are more likely than Asians, Hispanics, and whites to report something was stolen from them. Whites are more likely than Asians, Hispanics, or blacks to report someone threatened to hurt them. Blacks and American Indians are more likely than whites to report they do not feel safe at school. Hispanics and American Indians are more likely than blacks, Asians, or whites to report someone offered to sell them drugs.

Chapter 3: Life Outside of School

It is widely recognized that the educational and social development of eighth graders occurs not only within the walls of the classroom, but also in the home and community. However, relatively little is known about how young adolescents spend their time outside of school and how the activities they are engaged in affect their academic achievement and social development.

This chapter examines the lives of eighth graders outside of school, including the amount of time they spend on homework, outside reading and television viewing; their participation in out-of-school activities such as neighborhood clubs, religious groups, non-school team sports, and summer programs; and the types of work they perform for pay. In addition, it describes which eighth graders are being left home alone after school.

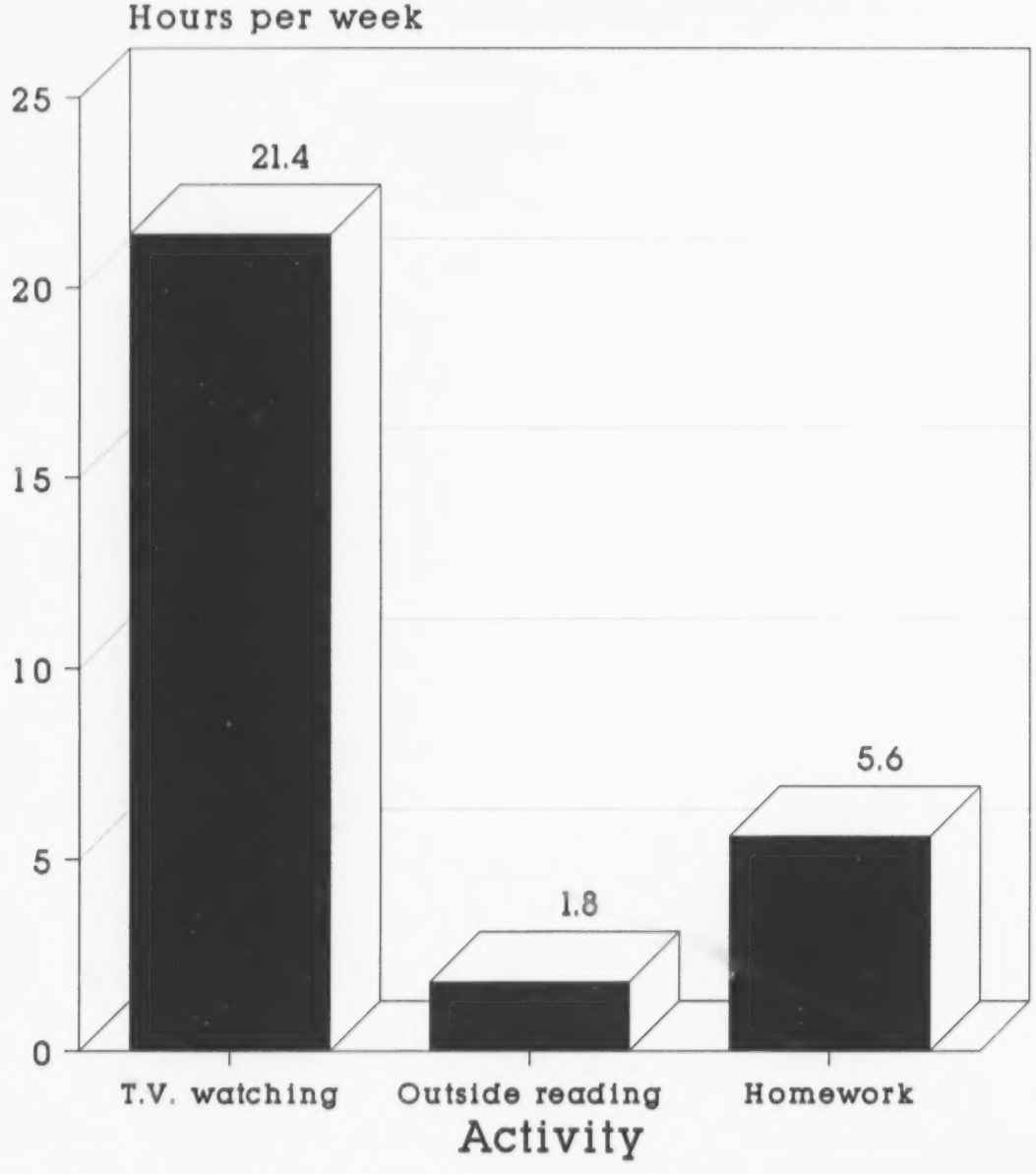
How Students Spend Their Time: Television, Homework, and Reading

Television viewing appears to dominate the out-of-school time of most eighth graders. Figure 3.1 shows the number of hours the average eighth grader spends per week watching television, relative to the number of hours spent on homework and outside reading. Homework and outside reading (i.e., reading not assigned for school) clearly occupy less time than television viewing for most students. The average number of hours per week spent watching television is 21.4. This is almost 4 times the number of hours spent on homework (5.6 hours per week); and 10 times the number of hours spent on outside reading (1.8 hours per week).

Homework and outside reading clearly occupy less time than television viewing for most students. The average number of hours per week spent watching television is 21.4. This is almost 4 times the number of hours spent on homework.

Table 3.1 displays the average number of hours spent per week on outside reading, homework, and television. It is evident that eighth graders today read very little on their own, compared with the time spent watching T.V. Females spend more time on outside reading than males--about one-half hour more per week. Although females spend more time on homework than males, the difference is small (about 18 minutes per week). Asians spend at least 1 hour more per week on homework than Hispanics, blacks, whites, and American Indians. Black students watch more television on average per week than Asians, Hispanics, or whites.

Figure 3.1. Average hours per week spent on various activities



Source: U.S. Dept. of ED, NELS:88, Base Year

Table 3.1.--Average number of hours spent per week on outside reading, homework, and television watching, by selected background characteristics.

Student Characteristics	Average Hours Spent Per Week		
	Outside Reading	Home-Work	TV Total
TOTAL	1.8	5.6	21.4
SEX			
Male	1.5	5.4	22.3
Female	2.1	5.7	21.2
RACE/ETHNICITY			
Asian and Pacific Islander	1.9	6.7	21.4
Hispanic	1.6	4.7	22.6
Black	1.6	5.2	27.6
White	1.9	5.7	20.8
American Indian and Native Alaskan	1.7	4.7	23.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Figure 3.2 shows how much time students who attend different types of schools watch T.V., do homework, and read material not assigned for school purposes. The amount of time spent on television viewing seems to vary by school type. Students in all types of private schools spend greater amounts of time on homework than public school students. Students in independent schools watch fewer hours of television than those in public schools or those in Catholic schools (See table 3.2.1 in appendix D for percentages).

When Students Come Home From School

When students come home from school, they return to different environments. A topic of general interest is whether an adult is present when a student returns from school. Another issue of concern is how many hours a student spends at home without an adult present. The subtle distinction between returning to an empty home and the number of hours one spends alone should be emphasized. Some students may return from school to an empty home, but within an hour or so a family member or other adult will arrive. In other instances, students may return to a home where an adult is present, but that adult may leave after the students enter the home. It is not surprising, therefore, that the results for these two issues are different.

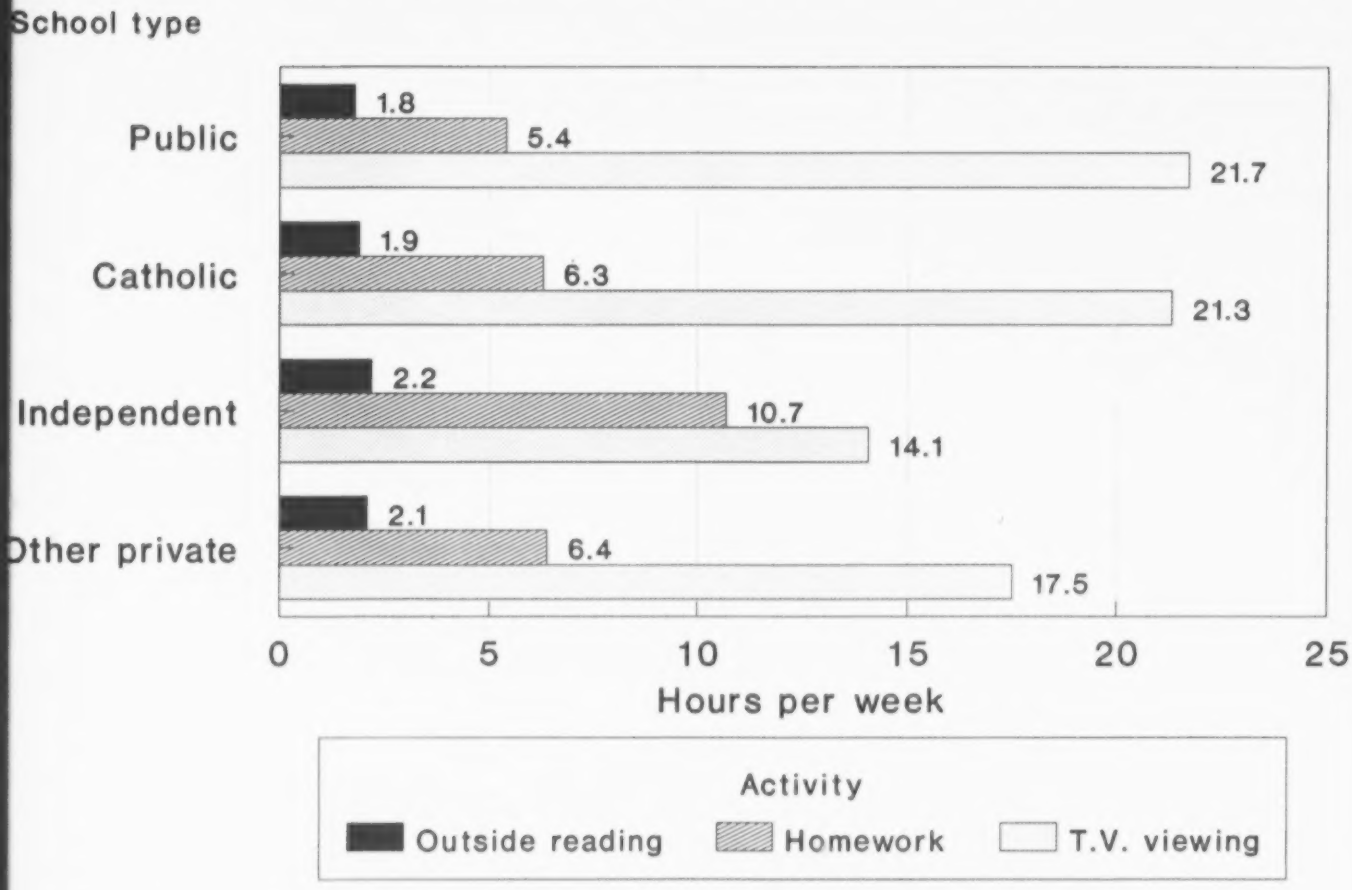
With respect to the question of whether an adult is present when the student returns from school, whites and blacks are more likely than Hispanics to respond that there is usually no one home when they return after school (table 3.2). Children of families in the highest SES quartile are almost twice as likely as those in the lowest SES quartile to report that usually no one is home after school.

Table 3.2 also shows that children from families in which at least one parent is a college graduate are more likely than those students whose parents did not finish high school to respond that usually no one is home after school. In addition, students from families in which at least one parent has a master's degree or equivalent are more likely than those whose parents did not finish high school to say that usually no one is home after school.

As for how much time students spend alone after school, table 3.3 shows the number of hours eighth graders spend at home after school each day with no adult present. Thirteen percent report that they are never at home after school without an adult present. Thirty-two percent report being home with no adult supervision less than 1 hour each day; 28 percent report 1 to 2 hours; 13 percent report 2 to 3 hours; and 14 percent report more than 3 hours. Overall, about 60 percent report spending less than 1 hour to 1 to 2 hours alone.

Hispanics are more likely than most other groups to say they are never home without an adult after school. At the same time, whites are less likely than other groups to

Figure 3.2. Hours per week spent on various activities, by school type



Source: U.S. Dept. of ED, NCES, NELS:88 Base Year

Table 3.2.--Percentage of eighth graders who usually have no one home when they return home from school, by selected background characteristics

Background Characteristics	Usually No One Home When Returns Home From School
TOTAL	17.6
RACE/ETHNICITY	
Asian and Pacific Islander	14.4
Hispanic	12.4
Black	17.6
White	18.6
American Indian and Native Alaskan	13.8
SES QUARTILE	
Lowest Quartile	11.9
25-49%	16.1
50-74%	20.9
Highest Quartile	21.4
FAMILY INCOME	
Less than $15,000	13.5
$15,000 - $24,999	16.0
$25,000 - $34,999	17.2
$35,000 - $50,000	19.8
Over $50,000	21.5
PARENTS' EDUCATION	
Did Not Finish High School	11.7
High School Graduate	16.2
Some College	18.4
College Graduate	18.8
MA or Equivalent	21.9
Ph.D., M.D./Equivalent	17.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

Table 3.3.--Percentage of eighth graders spending various numbers of hours after school each day at home with no adult present, by selected background characteristics

Background Characteristics	Number of Hours				
	None Never Happens	Less Than 1 Hour	1 - 2 Hours	2 - 3 Hours	More Than 3 Hours
TOTAL	13.3	32.4	27.8	12.9	13.6
RACE/ETHNICITY					
Asian and Pacific Islander	16.7	29.0	25.8	12.6	15.9
Hispanic	20.7	29.0	22.8	11.2	16.3
Black	16.2	28.1	23.2	12.8	19.5
White	11.6	33.8	29.5	13.1	12.0
American Indian/ Native Alaskan	16.0	30.8	21.1	13.3	18.8
SES QUARTILE					
Lowest Quartile	18.6	31.5	22.9	9.9	17.2
25-49%	13.6	32.1	27.2	13.0	14.2
50-74%	11.0	29.9	29.6	15.6	14.0
Highest Quartile	10.3	36.2	31.3	13.0	9.3
SCHOOL TYPE					
Public	13.0	32.1	27.9	13.0	14.0
Catholic	13.4	34.0	26.4	13.9	12.3
Independent	15.3	36.7	30.5	9.7	7.9
Other Private	20.1	34.6	27.8	8.7	8.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

Thirteen percent report that they are never at home after school without an adult present. Thirty-two percent report being home with no adult supervision less than 1 hour each day; 28 percent report 1 to 2 hours; 13 percent report 2 to 3 hours; and 14 percent report more than 3 hours.

be home without an adult for more than 3 hours after school. Blacks and American Indians are more likely than other subgroups to be without an adult for more than 3 hours.

Students in the lowest socioeconomic quartile are more likely than those in other quartiles to say that they are never at home after school without an adult present. Yet, these students are also more likely than those at other quartiles to say they are home without an adult for more than 3 hours.

Table 3.3 also shows differences by school type. "Other private" school students are more likely than other students to say they are never home without a parent after school. Public school students are more likely than independent and other private school students to say they are home without an adult for 3 or more hours after school.

Clubs and Activities Outside of School

Outside-of-school activities constitute a significant part of students' lives. This section describes how participation in each of these activities differs by student characteristics. Table 3.4 shows that 71 percent of the students report that they participate in some type of organized activity outside of school. The four activities that students report participating in most often are non-school team sports (37 percent), religious youth groups (34 percent), summer programs (19 percent), and hobby clubs (15 percent).

Although the percentages of males and females who participate in at least one activity are about the same, there are gender differences in activity selections. Males are twice as likely as females to participate in scouting and non-school team sports, while females are more likely to participate in religious youth groups and summer programs.

Those whose families fall into the highest socioeconomic status quartile are more likely than those in the lowest quartile to take part in at least one outside-of-school activity (83 percent versus 60 percent).

Table 3.4.--Percentage of eighth graders participating this year in outside-school activities, by selected background characteristics

Background Characteristics	Any Outside-School Activity	Scouting	Boys' or Girls' Clubs	'Y' or Other Youth Group	4-H	Religious Youth Groups	Hobby Clubs	Neighborhood Clubs	Summer Program	Non-School Team Sports
TOTAL	71.3	14.2	10.7	15.3	9.3	33.8	15.5	12.7	19.2	37.3
SEX										
Male	70.7	18.9	11.2	14.3	8.5	29.5	17.1	13.6	16.3	45.1
Female	71.8	9.8	10.2	16.2	10.0	37.9	13.9	11.7	22.0	29.9
RACE/ETHNICITY										
Asian and Pacific Islander	67.9	13.1	9.1	12.7	4.7	27.4	16.7	11.8	24.2	32.0
Hispanic	60.3	10.9	13.2	13.9	6.1	24.6	15.5	13.3	19.5	31.3
Black	65.6	20.0	13.7	23.0	13.8	30.0	22.4	23.4	29.6	33.9
White	74.4	13.7	8.1	14.3	9.1	36.6	14.1	10.7	17.1	39.1
American Indian/ Native Alaskan	60.9	17.3	18.0	15.7	10.0	27.5	20.6	17.6	22.0	34.1
SES QUARTILE										
Lowest Quartile	60.0	12.9	14.5	14.0	11.1	22.7	16.3	14.1	16.5	29.5
25-49%	68.5	13.6	11.1	15.5	10.0	30.1	15.0	13.3	16.6	35.6
50-74%	74.2	14.4	9.5	14.8	9.4	35.9	15.1	11.6	18.7	38.4
Highest Quartile	82.6	16.0	8.0	16.7	6.7	45.6	15.5	11.7	24.7	45.2
LOCATION										
Urban	69.1	15.2	14.6	17.9	5.9	29.6	17.7	16.7	23.7	35.6
Suburban	71.5	14.0	9.1	14.2	7.1	33.3	14.9	11.3	18.5	40.0
Rural	72.8	13.9	9.9	14.8	14.9	37.9	14.7	11.2	16.7	35.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

One may observe several trends if one looks at outside-of-school activity by socioeconomic status. Those whose families fall into the highest socio-economic status quartile are more likely than those in the lowest quartile to take part in at least one outside-of-school activity (83 percent versus 60 percent). Eighth graders whose families have higher socioeconomic status are much more likely than students from low socioeconomic status to be involved in non-school team sports, summer programs, and religious youth groups. Students in the lowest socioeconomic status quartile take part more often than those in the highest socioeconomic status quartile in boys' and girls' clubs and 4-H clubs.

Students' non-school activities vary with regard to urbanicity. As expected, students from rural areas are twice as likely as urban and suburban youths to participate in 4-H. They are also more likely to participate in religious youth groups. Students from urban areas are more likely than others to participate in boys' and girls' clubs, neighborhood clubs and summer programs. Suburban youth are more likely than urban or rural youth to participate in non-school team sports.

Employment Experiences

Twenty percent of the eighth graders report that they have never worked for pay. For those who have ever worked, employment is generally confined to babysitting, lawn work, waiting tables, and odd jobs (probably because of age restrictions). This is consistent with the assertion that limited work opportunities are available to young teens. As seen in table 3.5, males are far more likely than females to do lawn work, wait tables, have a newspaper route, or do farm or other manual labor. Females are more likely than males to babysit.

Asians and Hispanics are more likely than blacks, whites, and American Indians to have never worked for pay. White students are more likely than most other subgroups to babysit.

Table 3.5.--Percentage of eighth graders reporting various jobs ever worked for pay, by selected background characteristics

Background Characteristics	Have Not Worked for pay	Lawn work	Waiter/ odd jobs	Newspaper route	Baby sitting	Farm/ manual labor	Clerk/ sales office
TOTAL	19.6	14.7	16.1	5.4	32.5	8.5	3.2
SEX							
Male	17.9	27.3	21.8	8.9	6.1	14.8	3.4
Female	21.3	2.5	10.5	2.0	58.4	2.3	3.1
RACE/ETHNICITY							
Asian and Pacific Islander	35.3	9.2	17.0	5.0	22.8	5.4	5.4
Hispanic	31.8	9.8	17.9	4.5	24.3	6.6	5.1
Black	25.4	14.0	18.9	4.4	28.4	4.4	4.5
White	16.0	15.9	15.1	5.8	35.0	9.6	2.6
American Indian and Native Alaskan	18.9	13.3	21.2	5.5	30.6	7.1	3.4
SES QUARTILE							
Lowest Quartile	22.5	13.0	19.2	4.4	28.8	9.0	3.1
25-49%	19.2	13.9	16.8	5.7	31.7	9.6	3.1
50-74%	18.1	15.4	15.4	5.7	33.8	8.7	3.0
Highest Quartile	18.6	16.6	12.9	6.0	35.6	6.6	3.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

Chapter 4: Getting Ready for High School

For most students, eighth grade marks the last year they will attend elementary, junior high, or middle schools, after which they will move into unfamiliar and often larger high schools. It is a time when eighth graders and their parents are faced with making important decisions regarding the type of high school the students plan to attend and the program and courses in which they hope to enroll. These decisions and choices are likely to greatly influence the paths students will follow throughout high school and into their adult lives.

As the preceding chapters indicate, eighth graders experience schooling very differently. One source of this diversity is the variation in academic subjects in which the students are enrolled, such as algebra, regular mathematics, or remedial mathematics. Students enrolled in academically demanding courses are more likely than others to spend more hours doing homework, and to plan to enroll in a college preparatory program. But just as taking specific eighth grade courses appears to be associated with certain positive educational outcomes, there are other behaviors, such as absenteeism, tardiness, and grade retention, that are associated with failure to complete high school.

This chapter presents some basic findings about student expectations in eighth grade, including the types of high schools they plan to attend, various programs they expect to enroll in, educational goals, and occupational aspirations. These expectations, based on student reports, are described for selected subgroups defined by demographic classifications--such as sex and race--and by other background characteristics--such as parents' education level. Special attention is paid to identifying those individuals who act as key decision-makers in the students' lives and the influence they have on high school program and course selections.

High School Choice

Typically, students enrolled in elementary or middle schools will enter ninth grade in a new school. Most of those who do not make this transition at grade 9 will do so the following year, at grade 10. Some families use this transition period to change from private schools to public ones or the reverse. For example, a student who attends a private elementary school may plan to begin his or her secondary school experience in a public high school.

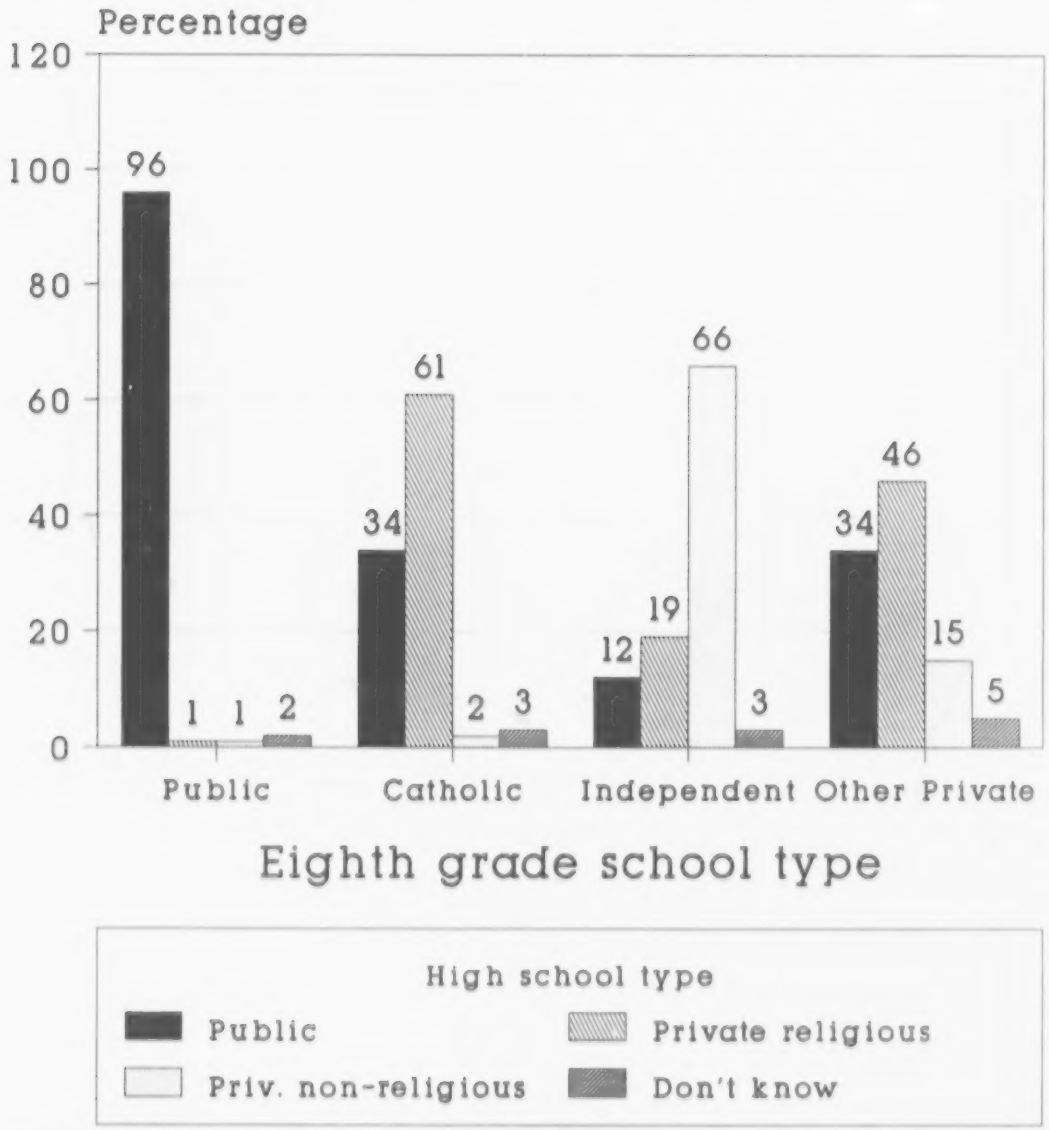
As shown in table 4.1 and figure 4.1, 34 percent of Catholic, 12 percent of independent, 34 percent of other private, and 96 percent of public school eighth grade students plan to attend public high schools[10]. The remainder plan to enroll in a private school. Students in independent schools are less likely than Catholic or other private school students to

Table 4.1.--Percentage of eighth graders planning to attend various types of high schools, by eighth grade school type

School Characteristics	High School Choice			
	Public	Private Religious	Private Non-Religious	Don't Know
TOTAL	88.1	7.5	1.8	2.5
EIGHTH GRADE SCHOOL TYPE				
Public	95.8	1.3	0.6	2.4
Catholic	34.2	61.2	1.5	3.2
Independent	12.0	19.3	66.3	2.5
Other Private	33.6	46.3	15.1	5.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

Fig. 4.1. Percentage of eighth graders planning to attend high school types, by eighth grade school type



SOURCE: U.S. Dept. ED. NCES, NELS:88

indicate plans to attend public high schools. As eighth graders, 12 percent are in the private sector (7.5 percent in Catholic schools, 1 percent in independent schools, and 3.5 percent in other private schools). If students' plans are realized, and excluding those who don't know (about 3 percent), about 9 percent of students would enroll in private-sector high schools, 3 percent less than in the eighth grade.

As seen in table 4.2, the decision to attend a private high school appears to be associated with the location of the eighth grader's school. A greater proportion of students in urban areas, as compared with students in suburban or rural locations, plan to attend private religious or non-religious high schools. Seventeen percent of those students who attend schools in urban areas plan to attend private high schools. In contrast, only 2 percent of those students who attend rural schools and 10 percent of those who attend suburban schools plan to attend private high schools.

There are several differences seen by race/ethnicity among the students planning to attend public versus private high schools. Asians are more likely than Hispanics and blacks to plan to attend private schools. Blacks are less likely than whites to choose private religious high schools.

Students with highly educated parents (college graduates) are more likely than those whose parents did not finish high school to choose private high schools. Ninety-four percent of the students whose parents did not finish high school plan to enroll in a public high school, while only 82 percent of those students whose parents graduated from college and 82 percent of those with graduate degrees plan to enroll in a public school. The trend for socioeconomic status closely resembles the pattern for parental education. Ninety-three percent of those students in the lowest socioeconomic quartile plan to attend public school, while only 80 percent of the students in the highest socio-economic quartile have similar plans.

Selecting a High School Program

Before eighth graders enter high school, they are often given an opportunity to select a specific curricular program from several options. Traditionally, these curricular programs have been labeled as college preparatory, general or comprehensive, and vocational. Responding to the increasing number of high schools offering specialized programs, NELS:88 used an expanded list of curricular categories, also including an additional "specialized" program -- such as fine and performing arts.

Curricular program placement has been shown to be critically important, for it determines high school course selection. Research on data from earlier NCES studies such as High School and Beyond clearly links high school curricular placement with achievement, educational

Table 4.2.--Percentage of eighth graders planning to attend various types of high schools, by selected background characteristics

School Characteristics	High School Choice			
	Public	Private Religious	Private Non-Religious	Don't Know
TOTAL	88.1	7.5	1.8	2.5
RACE/ETHNICITY				
Asian and Pacific Islanders	80.7	12.0	3.5	3.7
Hispanic	87.8	7.2	0.9	4.1
Black	90.0	4.1	1.5	4.5
White	88.4	8.1	1.9	1.7
American Indian and Native Alaskans	84.5	5.3	2.2	8.0
PARENTS' EDUCATION				
Did Not Finish High School	93.6	1.6	0.3	4.5
High School Graduate	91.3	5.0	0.7	2.8
High School Plus Some College	90.4	6.6	1.0	2.1
College Graduate	81.8	12.8	3.5	1.9
Graduate Degree	81.9	12.5	4.3	1.4
SES QUARTILE				
Lowest Quartile	93.2	2.2	0.5	4.1
25-49%	92.0	5.2	0.7	2.1
50-74%	87.9	8.8	1.3	2.1
Highest Quartile	79.5	13.9	4.8	1.8
URBANICITY				
Urban	78.4	13.8	3.4	4.5
Suburban	88.3	8.8	1.2	1.7
Rural	95.6	1.0	1.4	2.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

expectations, and occupational aspirations. Given the significance of curricular program placement, it is disturbing to find that one-quarter of the eighth graders are uncertain about the high school program in which they expect to enroll. When asked in which high school program they expect to enroll, 25 percent of the eighth graders responded "don't know" (figure 4.2).

The curricular program receiving the most nominations is college preparatory or academic, with 29 percent of the eighth graders choosing it. Eighteen percent of the students expect to enroll in a vocational, technical, or business or career program, whereas 14 percent expect to enroll in a general high school program. Five percent of the students expect to enroll in a specialized program such as fine arts. About 8 percent of students chose the "other" category.

Table 4.3 looks at expected high school program enrollments, by various student background characteristics. In general, females and males appear to select the same programs. The most noteworthy differences (although small) are in the vocational category, which is chosen by more males, and in the specialized programs, which are chosen more often by females.

Asians are significantly more likely than any other racial group to plan to enroll in a college preparatory program. Blacks are more likely than whites and Asians to plan to enroll in a vocational program. Whites

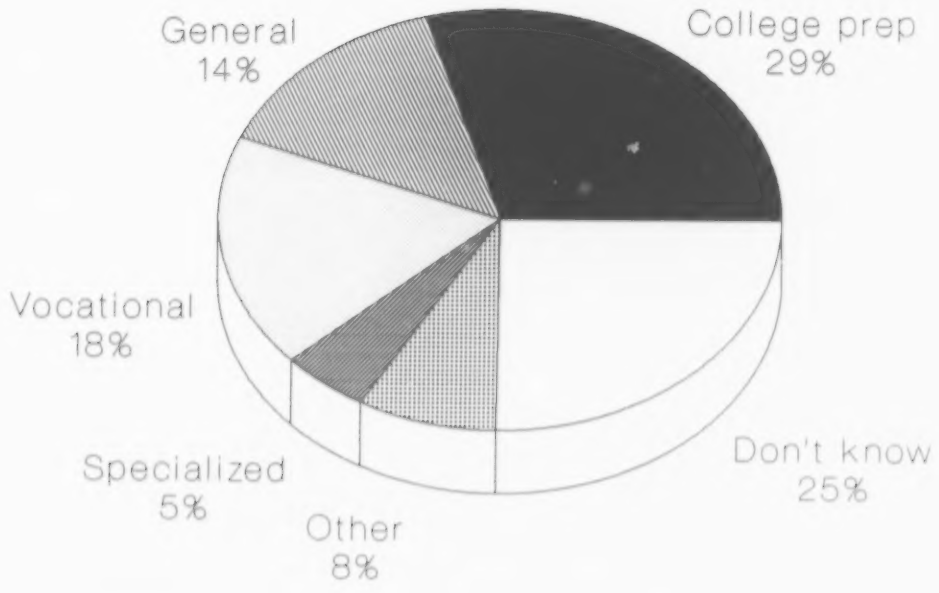
The curricular program receiving the most nominations is college preparatory or academic, with 29 percent of the eighth graders choosing it.

are less likely than Hispanics and blacks to enroll in a vocational program. Hispanics appear to be the most uncertain about selecting a high school program; they are more likely than other subgroups (with the exception of American Indians) to respond "don't know."

Other student characteristics which seem to be related to high school program expectations include socioeconomic status, grades, standardized test scores, and measures of self-concept. Without exception, students in the highest quartile for each of these four measures are more likely than other students to expect to enroll in a college preparatory program. In contrast, those eighth graders in the lowest quartile for each of these four measures are more likely than those in the other quartiles to respond "don't know" to the question about expected high school program enrollment.

Vocational programs are more likely to be selected by students who have lowest quartile grades and lowest quartile standardized test scores than by those with highest quartile grades and test scores. Thus, it would appear that, even before students begin high school, the more

Figure 4.2. Percentage of eighth graders planning to enroll in various high school programs



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

Table 4.3.--Percentage of eighth graders planning to enroll in various high school programs, by selected background characteristics

Student Characteristics	High School Programs					
	College Preparatory Academic	Vocational Technical Business	General High School Program	Specialized Program	Other	Don't Know
TOTAL	29.2	18.0	14.3	5.4	8.1	25.1
SEX						
Male	28.8	19.6	14.0	4.3	8.5	24.8
Female	29.6	16.4	14.5	6.5	7.6	25.4
RACE/ETHNICITY						
Asian and Pacific Islander	37.1	17.6	9.7	4.0	6.9	24.6
Hispanic	22.5	22.3	10.6	5.3	10.4	29.0
Black	24.7	25.9	9.7	5.6	10.9	23.1
White	30.9	15.9	16.0	5.5	7.2	24.6
American Indian and Native Alaskan	17.2	22.8	9.6	7.2	8.7	34.6
SES QUARTILE						
Lowest Quartile	17.4	23.4	13.5	4.7	9.9	31.2
25-49%	25.1	20.7	14.0	4.6	9.0	26.7
50-74%	31.1	16.9	14.7	6.1	8.2	22.9
Highest Quartile	43.0	11.1	14.8	6.3	5.2	19.6
GRADES						
Lowest Quartile	11.3	21.8	16.7	5.8	9.9	34.6
25-49%	19.7	21.9	15.8	6.9	9.9	26.8
50-74%	30.1	17.6	14.6	6.0	8.3	23.4
Highest Quartile	51.9	11.9	10.6	4.3	4.8	16.6
TEST QUARTILE						
Lowest Quartile	12.6	23.5	12.8	4.9	11.9	34.2
25-49%	19.8	22.2	15.0	5.8	10.0	27.2
50-74%	31.0	16.9	15.1	6.3	7.2	25.6
Highest Quartile	52.4	9.6	13.4	4.9	3.6	16.1
SELF CONCEPT QUARTILE						
Lowest Quartile	19.9	18.4	15.0	5.7	9.3	31.8
25-49%	26.0	17.3	15.6	5.7	7.5	27.9
50-74%	29.1	18.5	14.8	5.3	7.7	24.5
Highest Quartile	38.6	18.0	11.9	5.1	8.0	13.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

academically successful students are selecting high school programs that lead to college entrance, whereas the less academically successful are selecting programs that often do not lead to additional academic school work after high school.

Evidence of the relationship between high school program choice and prior academic goals and activities can be seen by the type of courses taken in eighth grade. Eighth grade course enrollments seem to be a strong indicator of high school program plans. Table 4.4 shows that students in algebra, foreign language, and science classes with laboratories are far more likely than students enrolled in other courses to expect to enter a college preparatory program in high school.

Taking advanced math or algebra and foreign language in eighth grade has been viewed by scholars who study high school curricular placements as preparation for high school academic programs (Goodlad, 1984, Oakes, 1985). Although the base year study of NELS:88 cannot determine if such eighth grade course taking behaviors actually lead to differentiated high school placements, the NELS:88 First Follow-up (which traces these students in high school) should be able to determine what effect prior academic behaviors have on high school placement. However, what can be inferred from these data is that students

Table 4.4--Percentage of eighth graders planning to enroll in various high school programs, by selected courses taken in eighth grade

	High School Programs					
Students' Courses	College Preparatory Academic	Vocational Technical Busi. Career	General High School Program	Specialized	Other Program	Don't Know
TOTAL	29.2	18.0	14.3	5.4	8.1	25.1
MATH						
Advanced Math/ Algebra	46.9	13.7	11.4	4.7	5.3	18.0
Regular Math	22.1	19.4	15.9	5.8	9.3	27.5
Remedial Math	15.1	20.9	15.3	7.0	10.5	31.2
SCIENCE						
Classes with Lab	34.7	15.6	14.3	6.8	7.7	20.9
Classes without Lab	28.2	18.2	14.6	4.9	8.0	26.0
ENGLISH						
Regular English	31.3	17.2	14.4	5.4	7.7	24.0
Remedial English	24.3	19.9	14.9	5.1	9.0	26.8
Foreign Language	36.5	15.0	14.4	5.7	6.8	21.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

enrolled in algebra and foreign language may have a clearer idea of the high school program in which they plan to enroll and are significantly more likely to expect to enroll in the college preparatory or academic program.

For such an important decision as planning a high school program, students turn to various adults for advice. It is evident that eighth graders discuss their high school program plans with their mothers more than with their fathers, and far more than they discuss such plans with counselors or teachers. Eighth graders are far more likely to discuss their high school plans with their mothers three or more times (52 percent) than with their fathers (31 percent), their teachers (8 percent) or their counselors (6 percent) (table 4.3.1 in appendix D for data).

Eighth graders are far more likely to discuss their high school plans with their mothers three or more times (52 percent) than with their fathers (31 percent), their teachers (8 percent) or their counselors (6 percent).

Percentages of students who have **never** discussed planning a high school program with various adults (by expected high school program plans) are presented in table 4.5. Those students who are the least certain about their high school program are those most likely **not** to speak with family or school personnel about such plans.

Table 4.5.--Percentage of eighth graders who never discussed various high school programs with various adults, by expected high school program

	Never Discussed with			
Expected High School Program	Mother	Father	Teacher	Counselor
TOTAL	11.0	26.0	53.5	64.1
College Preparatory	4.9	16.3	40.9	54.9
Vocational, Technical Business Career	9.3	24.5	54.4	63.8
General High School	11.6	26.9	56.5	63.0
Specialized Programs	9.1	27.4	51.0	63.0
Other	11.8	27.8	54.7	68.1
Don't Know	19.2	37.3	66.4	75.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

In every case, those planning to enroll in a college preparatory program are more likely than others to discuss their plans. Thus, it would seem that those needing the most direction concerning high school program options are the very individuals least likely to have discussions with those who could give assistance.

Educational and Occupational Aspirations

Even as early as eighth grade, students have some ideas about the type of work they would like to do as adults and how far in school they would like to go. A large number of NELS:88 students (29 percent) aspire to careers in professional, business or managerial occupations. The category which received the fewest nominations (less than 1 percent) is laborer or farm worker.

Looking at table 4.6, some clear sex differences can be seen regarding occupational aspirations. Thirty-eight percent of the females aspire to professional careers, whereas only 20 percent of the males indicate that they are interested in professional careers. Regardless of ethnic group membership, many eighth graders aspire to professional careers. Asians (35 percent), however, are more likely than other ethnic groups to express an interest in pursuing a professional career.

As parents' education level increases, so does the percentage of students who aspire to a professional career. Forty-three percent of those students whose parents hold post-college graduate degrees (M.A. or Ph.D.) express an interest in professional careers, in comparison to 20 percent of the students whose parents did not finish high school.

Students who expect to enroll in a college preparatory program are more likely than students who expect to enroll in a general high school program to express an interest in a professional career (42 percent vs. 26 percent). Students who do not know what type of high school program they would be in are more likely than others to respond that they do not know what type of occupation they want to pursue.

The high occupational aspirations of the eighth graders are also reflected in their educational expectations. As table 4.7 illustrates, most eighth graders expect to finish high school, and a two-thirds majority expect to finish college. Over 42 percent of the students expect to graduate from college and an additional 23 percent report that they would attend a higher level of school after graduating from college. About 2 percent of the students believe they will not finish high school, which is considerably lower than national estimates of high school dropout rates. Eleven percent expect to graduate from high school but not continue any further. Slightly under 10 percent expect to go on to vocational, trade, or business school after high school and 13 percent expect to attend college but not graduate.

Table 4.6.--Percentage of eighth graders aspiring to various occupations, by selected student characteristics

Student Characteristics	Occupations													
	Crafts-person or operator	Farm or Farm Manager	Housewife Homemaker	Laborer or Farm worker	Military, Police or Security	Professional Business, or Managerial	Owner of a Business	Tech-nical	Salesperson Clerical or office work	Science or Engineer	Service worker	Other	won't Be working	Don't know
TOTAL	4.2	1.0	2.3	0.6	9.6	28.7	6.2	6.2	2.8	5.9	4.9	17.0	0.2	10.5
SEX														
Male	7.6	1.7	0.2	1.0	14.9	19.6	6.8	8.3	1.2	8.5	2.1	17.6	0.3	10.4
Female	.9	0.3	4.4	0.1	4.3	37.6	5.6	4.2	4.5	3.3	7.7	16.5	0.1	10.6
RACE/ETHNICITY														
Asian and Pacific Islander	3.6	0.6	1.1	0.7	7.0	34.9	6.4	7.6	2.3	9.7	2.3	13.4	0.0	10.5
Hispanic	5.3	0.6	2.9	0.8	11.0	26.0	5.7	7.3	3.8	4.8	3.9	15.1	0.3	12.5
Black	3.2	0.1	0.9	0.6	11.5	29.4	5.8	8.0	2.9	4.2	6.4	16.3	0.4	10.4
White	4.3	1.2	2.5	0.5	9.0	28.7	6.3	5.7	2.7	6.1	4.9	17.7	0.2	10.2
American Indian/ Native Alaskan	6.6	0.3	3.1	0.2	17.0	23.0	5.7	6.5	2.3	6.4	3.4	11.9	0.1	13.5
PARENT EDUCATION														
Did Not Finish High School	7.2	1.0	3.8	1.0	11.5	19.8	5.4	6.8	4.7	2.4	7.3	13.7	0.5	15.1
High School Graduate	6.3	1.3	2.6	1.0	11.4	22.1	5.8	6.0	3.4	3.6	6.6	17.3	0.2	12.5
Some College	4.3	1.1	2.0	0.5	10.3	27.7	6.1	6.8	2.9	5.4	4.9	17.8	0.1	10.1
College Graduate	1.9	0.8	1.7	0.2	6.6	35.2	7.4	6.0	1.9	9.2	2.8	17.1	0.2	8.9
Higher Level After College	0.8	0.5	2.2	0.3	5.9	43.0	6.0	4.4	1.5	10.2	2.6	16.5	0.2	6.0
HIGH SCHOOL PROGRAM PLANS														
College Preparatory, Academic	1.5	0.6	1.2	0.3	8.1	41.7	5.3	6.6	1.9	12.0	2.5	13.6	0.1	4.7
Vocational, Technical, Business Career	7.5	1.4	1.5	0.7	9.9	29.3	8.9	10.6	5.3	3.2	5.5	10.3	0.2	5.8
General High School Program	4.8	1.0	4.4	0.9	10.1	26.1	6.7	4.4	3.1	3.4	5.9	17.4	0.4	11.4
Specialized High	3.1	0.4	2.6	0.5	8.6	17.9	7.9	5.1	1.1	2.6	5.6	39.0	0.3	5.3
Other	5.5	1.2	2.5	0.5	14.1	19.4	3.9	5.4	1.3	3.6	6.9	30.2	0.2	5.4
Don't Know	4.5	1.3	2.9	0.6	9.6	20.0	5.3	4.2	3.0	3.3	5.9	16.2	0.3	23.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey"

Table 4.7.--Percentage of eighth graders aspiring to various education levels, by selected student characteristics

Student Characteristics	Education Levels					
	Won't Finish High School	Will Finish High School	Vocational, Trade, Business After	Will Attend College	Will Finish College	Will Attend Graduate School
TOTAL	1.5	10.5	9.4	13.1	42.8	22.7
SEX						
Male	1.8	12.1	10.1	13.3	42.5	20.2
Female	1.1	9.0	8.7	13.0	43.1	25.2
RACE/ETHNICITY						
Asian and Pacific Islander	1.5	5.8	4.9	12.1	37.4	38.2
Hispanic	2.6	14.8	10.7	17.1	33.2	21.5
Black	1.4	8.2	10.2	16.3	39.4	24.5
White	1.3	10.4	9.2	11.9	45.2	21.9
American Indian and Native Alaskan	3.2	16.0	13.8	16.5	33.9	16.7
SES QUARTILE						
Lowest Quartile	3.5	21.8	14.7	17.0	30.5	12.5
25 - 49%	1.4	12.6	12.0	15.0	42.5	16.5
50 - 74%	0.7	6.2	8.0	14.5	48.1	22.6
Highest Quartile	0.4	1.7	3.0	6.1	50.0	38.9
GRADES						
Lowest Quartile	4.0	23.5	15.5	18.0	29.9	9.2
25 - 49%	1.0	11.3	11.5	17.2	43.2	15.7
50 - 74%	0.6	6.1	8.0	12.6	50.6	22.2
Highest Quartile	0.2	2.2	3.6	5.9	47.6	40.6
TEST QUARTILE						
Lowest Quartile	3.9	21.1	14.7	18.5	29.2	12.7
25 - 49%	1.2	13.1	11.8	16.5	43.1	14.3
50 - 74%	0.4	6.2	8.0	12.2	49.9	23.3
Highest Quartile	0.2	1.3	3.3	5.3	48.9	40.9
EXPECTED H.S. PROGRAM						
College Preparatory	0.4	1.8	2.4	8.0	46.4	41.0
Voc./Tech./Bus.	1.4	9.9	24.6	12.7	36.1	15.4
General	1.5	15.7	8.9	14.9	44.8	14.3
Specialized	0.8	9.0	7.3	13.7	49.0	20.3
Other	1.9	11.0	7.6	15.2	44.6	19.7
Don't Know	2.5	18.2	8.1	17.4	40.9	12.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

The high occupational aspirations of the eighth graders are also reflected in their educational expectations. Most eighth graders expect to finish high school, and a two-thirds majority expect to finish college.

With respect to selected student background factors, females are more likely than males to expect to attend graduate school. Asians are more likely than all other groups to expect to attend graduate school. Whites are more likely than Hispanics and blacks to respond that they expect only to finish college and not continue. Hispanics are more likely than Asians, blacks, and whites to report they will not finish high school.

As in the instance of high school program plans, those students in the highest quartiles for socioeconomic status, grades, test scores, and self-concept are more likely than those in the lowest quartiles to expect to graduate from college. Students who expect to enroll in a college preparatory or academic high school program are more likely than those who expect to enroll in a vocational/technical program to expect to obtain a college diploma.

There is considerable inconsistency between educational expectations and high school program plans. This suggests possible negative consequences for some groups. Although 55 percent of Hispanics expect to finish college and/or obtain a graduate or professional degree, only 23 percent plan to enroll in a college preparatory program in high school. Assuming they follow their expected program plan, many students may find themselves unprepared for college admission. This same pattern occurs for blacks and American Indians. Sixty-four percent of black eighth graders indicate that they expect to finish college or obtain a graduate and professional degree, but only 25 percent plan to enroll in a college preparatory program.

Although most of the eighth graders are optimistic about their educational futures, there is a group of students who are tentative about even completing high school (table 4.8). While 83 percent of the students indicate that they are "very sure they will graduate from high school," 16 percent thought they would "probably graduate," 1 percent responded that they "probably won't graduate," and about 1 percent were "very sure they would not graduate." Hispanics are more likely than Asians, blacks, and whites to respond that they probably will not graduate. They are also more likely than Asians and whites to be very sure they will not graduate.

With respect to family characteristics, students in the lowest socioeconomic status quartile and those from families with annual incomes below $15,000 are significantly more likely than others to

Table 4.8.--Percentage of eighth graders who cite various probabilities for graduating from high school, by selected background characteristics

Student Characteristics	Probability of Completing High School			
	Very Sure Will Graduate	Will Probably Graduate	Probably Will Not Graduate	Very Sure Will Not Graduate
TOTAL	82.5	15.7	1.1	0.7
RACE				
Asian and Pacific Islanders	77.6	21.1	0.8	0.4
Hispanic	70.6	25.6	2.1	1.4
Black	81.5	16.6	1.2	0.7
White	85.0	13.6	0.9	0.6
American Indian and Native Alaskan	72.1	22.8	3.0	2.1
PARENTS' EDUCATION				
Did Not Finish High School	68.5	25.8	3.4	2.4
High School Graduate	80.3	17.7	1.2	0.9
High School Plus Some College	83.0	15.7	0.8	0.5
College Graduate	88.7	10.6	0.4	0.3
Graduate Degree	91.3	8.1	0.4	0.1
SES QUARTILE				
Lowest Quartile	71.8	24.0	2.5	1.7
25-49%	82.0	16.3	1.0	0.7
50-74%	85.1	14.1	0.6	0.3
Highest Quartile	91.1	8.4	0.3	0.2
FAMILY INCOME				
Less than $15,000	73.9	22.6	1.9	1.5
$15,000 - $50,000	83.8	14.8	0.8	0.6
Over $50,000	90.7	8.7	0.4	0.2
OLDER SIBLINGS WHO HAVE DROPPED OUT BEFORE GRADUATING				
None	84.7	14.0	0.8	0.5
One	71.9	23.9	2.2	2.1
Two	73.4	19.9	3.8	3.0
Three	69.6	27.2	3.2	0.0
Four	60.6	31.9	3.7	3.7
Five	68.1	25.8	3.8	2.3
Six or more	71.7	26.2	2.1	0.0
EVER REPEATED A GRADE				
Yes	71.2	24.4	2.6	1.7
No	86.4	12.6	0.6	0.4
DAYS OF SCHOOL MISSED IN PAST FOUR WEEKS				
None	86.2	13.0	0.5	0.4
1 or 2 days	84.8	14.2	0.7	0.4
3 or 4 days	77.4	19.6	2.0	1.1
5 to 10 days	74.7	21.3	2.6	1.5
More than 10 days	62.8	27.3	4.6	5.3
TIMES LATE FOR SCHOOL IN PAST FOUR WEEKS				
None	86.1	12.9	0.7	0.4
1 or 2 days	80.6	17.5	1.2	0.8
3 or 4 days	75.1	21.5	2.2	1.3
5 to 10 days	73.6	21.3	3.2	1.6
More than 10 days	64.1	27.3	3.1	5.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey."

expect not to graduate from high school. Parent education also appears to be related to expectations of not graduating from high school. Students with parents who did not finish high school are less likely than students whose parents were high school graduates to report they will graduate. Other characteristics of students who feel they are unlikely to graduate include having older siblings who left school prior to high school graduation, being retained in grade at some time during elementary school, and being tardy or absent three times or more in the past 4 weeks from school. Thus, it appears that, before they begin high school, a small number of students think they are unlikely to graduate from high school.

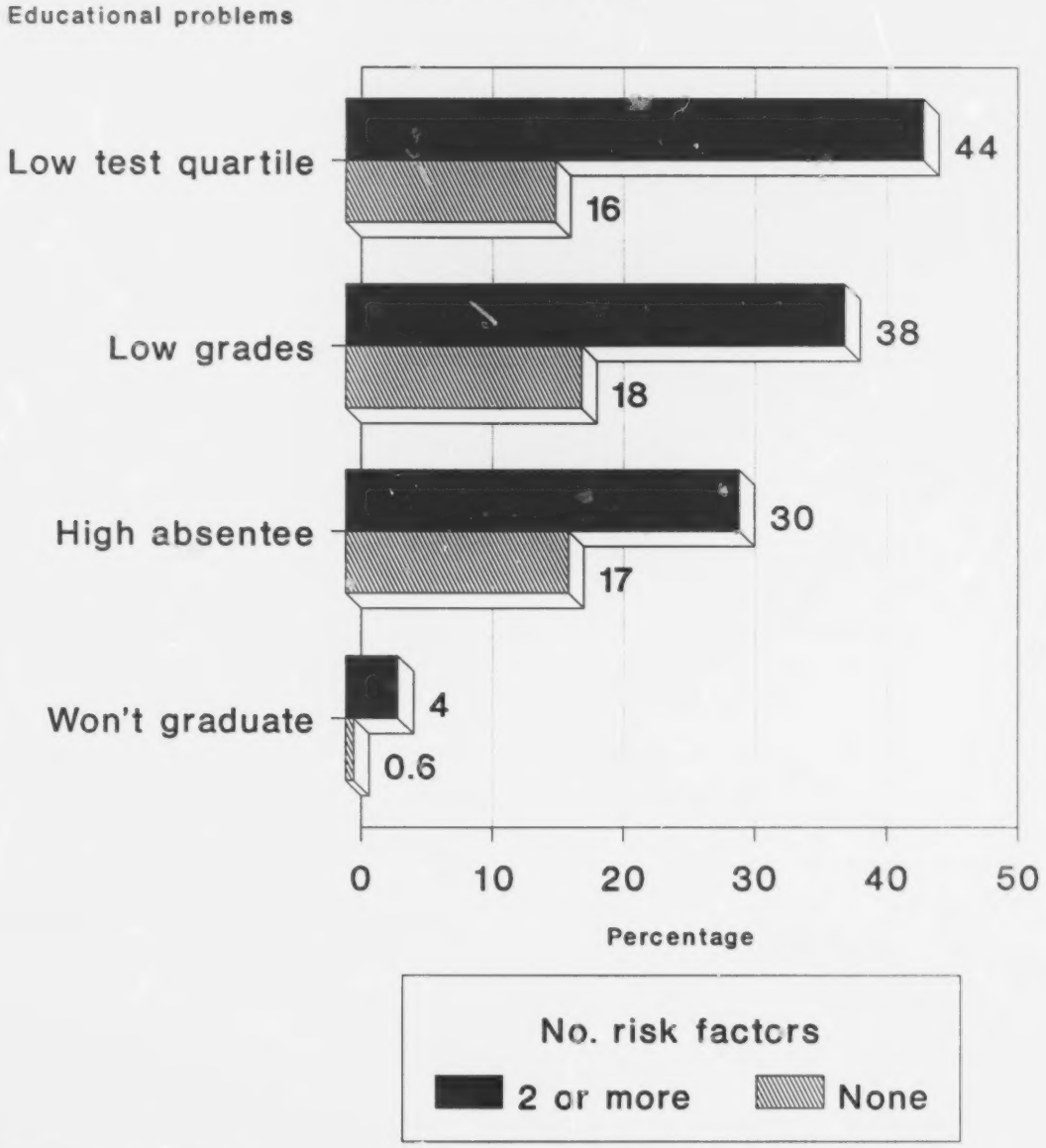
There are a number of explanations as to why certain students report that they do not expect to graduate from high school. In this regard, it is interesting to examine the relationship between the number of risk factors and various school outcomes. As seen in table 4.9 and figure 4.3, as the number of risk factors increases, the percentage of children with various education problems increases. Students with two or more risk factors are three times as likely as those with no risk factors to score in the lowest cognitive test quartile. Those with two or more risk factors are twice as likely as those with no risk factors to be in the lowest grades quartile. Students with two or more risk factors are twice as likely as those with no risk factors to be absent more than 3 days in the past month. In addition, those with two or more risk factors are six times as likely as those with no risk factors to expect not to graduate from high school. It is evident that at-risk status is related to education outcomes.

Students with two or more risk factors are three times as likely as those with no risk factors to score in the lowest cognitive test quartile. In addition, those with two or more risk factors are six times as likely as those with no risk factors to expect not to graduate from high school. It is evident that at-risk status is related to education outcomes.

Looking toward high school, the results of the base year study reveal that the majority of the students have high educational expectations and occupational aspirations. However, some of the students are planning to enter high school programs that may not lead them to realize their goals.

Most students do plan to succeed in school. But often, students are simply unaware of the consequences of their program selections and how such selections may place them on certain tracks both in school and in life. Perhaps one way to help students succeed in high school would be to distribute in the middle grades more information on different high school

Figure 4.3. Percentage of eighth graders with educational problems, by number of risk factors



SOURCE: U.S. Dept. ED. NCES, NELS:88 BY

programs and how they relate to various postsecondary academic and vocational program requirements. Encouraging greater parental involvement in high school planning might promote more realistic program plans and expectations.

Table 4.9--Percentage of eighth graders with various educational problems, by number of risk factors

	Lowest Test Composite Quartile	Lowest Grades Composite Quartile	Absent More Than 3 days	Doesn't Expect to Graduate High School
TOTAL	25.1	24.9	21.1	1.5
RISK FACTORS*				
No risk factors	15.7	18.1	16.8	0.6
One risk factor	30.6	29.4	23.8	1.5
2 or more factors	44.4	38.2	29.9	4.0

* Risk factors include single parent family, low parent education, limited English proficiency, low family income, sibling dropout, home alone more than 3 hours on weekdays.

SOURCE: U. S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

Endnotes

1. "At risk" status refers to possessing certain characteristics which have been found to be associated with educational disadvantage, or with school failure. The characteristics include (among others) single parent family, low parent education and income, limited English proficiency, and having a sibling who dropped out of high school.

2. For this analysis, students were grouped into quartiles according to their score on an index of socioeconomic status (SES). Students are divided into groups with high SES (top quartile), medium-high SES (third quartile), medium-low SES (second quartile) and low SES (bottom quartile). The components of the SES index are described in Appendix B - Technical Notes.

3. It is important to note that the base year NELS:88 sampling procedures disqualified many non-English-proficient (NEP) and limited-English-proficient (LEP) students. Schools were instructed to disqualify eighth graders who they thought were not sufficiently proficient in English to answer the questionnaire. Thus, those whose English skills were severely limited were eliminated. LEPs who are included in the survey are probably at the high end of the proficiency continuum in terms of skills. A sample of students who were declared ineligible in base year (1988) will be contacted in 1990 and added into the survey in 10th grade. In addition, some new 10th-grade NEP and LEP students will also be added, and a student Spanish-language questionnaire will be made available.

4. Categories used here are similar to those used by the Census Bureau. The "other relative or non-relative" category is included in the single parent household group, even though technically there is no parent in the home, and this group may possibly include two people (such as grandparents). Estimates may be slightly different for various reasons, including the fact that an eighth grade student as a respondent is not as reliable as an adult respondent, or because of different definitions or question wording.

5. Detailed test specifications for all four cognitive tests are reported in Eighth Grade Student Test Results, NCES, in press, and in the Base Year Psychometric Report, NCES, in press.

6. It is assumed that students proficient on a higher level should also show proficiency on lower level items. Studies on the NELS:88 instrument show that over 93 percent of students had response patterns consistent with this hierarchical model. Students who demonstrated proficiency at higher levels but failed to demonstrate proficiency at lower levels (reversals) were treated as missing values in figures 2.1 through 2.4 and in tables 2.1 and 2.2.

7. Results from the Congressionally-mandated NAEP tests indicate that, on average, American students' proficiency in reading has improved modestly across time, and proficiency in mathematics, science and writing has improved in recent assessments after earlier declines. However, gains in student performance have occurred mainly at lower levels of achievement. For example, students' ability to perform simple mathematical computations has improved, but students fail to show gains in performing higher level problem solving tasks.

8. The percentages cited in this chapter are based on student reports. It should be kept in mind that student reports of course taking are not as accurate as transcripts. High School and Beyond data indicated that older students (sophomores and seniors) tended to inflate the number of courses they were taking, sometimes reporting several subject-specific segments of a single course as different courses (see Fetters et al, 1983). It is probable that these younger students have followed the same pattern of over-reporting. To address this problem, transcripts will be collected as a part of the Second Follow-up of NELS:88. Evidence from teacher reports of course titles of students' math courses indicates that only about 24 percent of the classes taken were algebra, pre-algebra, advanced or honors, compared with 32 percent of students reporting taking these classes. Student reports of advanced mathematics course-taking seem to be inflated.

9. Percents do not add to 100 percent because about 2 percent of the students are excluded from the table. These students gave questionable responses to the question on math course-taking. For example, they may have indicated they were taking both algebra and remedial math, which is unlikely. There were differential response rates across categories, especially for racial/ethnic groups and test quartile.

10. Eighth grade schools were classified into public, Catholic, Independent, and other private, while intended high school types were classified as public, private religious, and private non-religious.

References

Coleman, J. S. 1966. **Equality of Educational Opportunity**. Washington, D.C.: Department of Education.

Fetters, W., Stowe, P. and Owings, J. 1984. **Quality of Responses of High School Students to Questionnaire Items**. Washington, D.C.: National Center for Education Statistics, US Department of Education.

Goodlad, John 1984. **A Place Called School**. New York: McGraw Hill.

Ingels, S. et al. 1990. **NELS:88 Base Year Student Data File Users Manual**. Washington, DC: NCES.

Kanouse, D., Haggstrom, G., Blaschke, T., Kahan, J., Kisowski, W. and Morrison, P. 1980. **Effects of Postsecondary Experiences on Aspirations, Attitudes and Self Conceptions**. Santa Monica, CA: Rand Corporation.

Milne, A., Myers, D., Rosenthal, A., and Ginsburg, A. 1986. Single parents, working mothers and the educational achievement of school children. **Sociology of Education**. 59, 125-139.

Oakes, Jeannie. 1985. **Keeping Track: How Schools Structure Inequality**. New Haven, CT: Yale University Press.

Pallas, A., Natriello, G., and McDill, E. 1989. The Changing Nature of the Disadvantaged Population: Current Dimensions and Future Trends. **Educational Researcher**, 18, 16-22.

Rock, D. and Pollack, J. 1990. **NELS:88 Base Year Psychometric Report**. Washington, D.C.: NCES Report.

Rock, D. and Pollack, J. 1990. **NELS:88 Base Year Student Test Results**. Washington, D.C. : NCES Report.

Rosenberg, M. 1979. **Conceiving the Self**. New York: Basic Books.

Shinn, M. 1971. Father absence and children's cognitive development. **Psychological Bulletin,** 85, 295-324.

Spencer, Bruce et al. 1990. **NELS:88 Base Year Sample Design Report**. Washington, DC: NCES Report.

U.S. Bureau of the Census. 1986. **Household and Family Characteristics**, March 1985. Current Population Reports, Series P-20, No. 411. Washington, DC: U.S. GPO.

APPENDIX A
Sample Composition by Selected Background Variables

APPENDIX A--Sample composition, by background variables (numbers and weighted percentages)

	1988 Eighth Graders	
	Unweighted Number	Weighted Percent
TOTAL	24,599	100.0
SEX		
Male	12,241	50.1
Female	12,358	49.9
RACE/ETHNICITY		
Asian or Pacific Islander (API)	1,546	3.6
Hispanic	3,177	10.4
Black	3,011	13.2
White	16,321	71.4
American Indian or Alaskan Native	315	1.4
YEAR OF BIRTH		
1970 or 1971	135	.5
1972	1,194	5.4
1973	7,188	30.4
1974	15,362	62.8
1975	254	.8
1976 - 1979	31	.0
SOCIOECONOMIC STATUS		
Lowest quartile	5,934	24.9
25 - 49 percentile	5,788	25.1
50 - 75 percentile	5,836	25.0
Highest quartile	7,030	25.0
PARENTS' EDUCATION		
Did not finish high school	2,537	10.5
High school graduate or GED	4,625	20.6
Greater than h.s. & less than 4 yr. degree	9,586	41.4
College graduate	3,654	14.0
M.A. or equivalent	2,254	8.1
Ph.D., M.D., other	1,432	4.0
Don't know	478	1.5
PARENT-REPORTED HANDICAP PROGRAM RECIPIENT		
Not current program participant	21,135	95.7
Current program participant	853	4.3
HEARING-IMPAIRED FLAG		
Not hearing impaired	23,846	96.8
Hearing impaired	753	3.2

APPENDIX A--Sample composition, by background variables (numbers and weighted percentages)--Continued

	1988 Eighth Graders	
	Unweighted Number	Weighted Percent
FAMILY INCOME		
None	94	.4
Less Than $1,000	203	.9
$ 1,000 -$ 2,999	338	1.6
3,000 - 4,999	453	2.2
5,000 - 7,499	729	3.5
7,500 - 9,999	818	3.8
10,000 - 14,999	1,794	8.8
15,000 - 19,999	1,682	8.0
20,000 - 24,999	2,130	10.5
25,000 - 34,999	3,815	18.5
35,000 - 49,999	4,301	20.4
50,000 - 74,999	3,007	14.1
75,000 - 99,999	933	3.7
100,000 - 199,999	915	2.7
200,000 - more	382	.9
FAMILY COMPOSITION		
Mother & father	15,587	63.6
Mother & male guardian	2,502	11.5
Father & female guardian	572	2.6
Mother only	3,923	16.5
Father only	619	2.6
Other relative or non-relative	787	3.2
HOME LANGUAGE		
Non-English only	941	3.2
Non-English dominant	2,186	6.5
English dominant	2,287	7.4
English only	19,103	82.9
LANGUAGE PROFICIENCY STATUS		
Limited-English proficient	642	2.3
English proficient	23,687	97.7
GRADES COMPOSITE		
Lowest quartile	5,817	24.9
25 - 49 percentile	5,264	22.2
50 - 75 percentile	6,113	24.6
Highest quartile	7,098	28.3

APPENDIX A--Sample composition, by background variables (numbers and weighted percentages)--Continued

	1988 Eighth Graders	
	Unweighted Number	Weighted Percent
HOMEWORK		
None	654	3.2
Fewer than 2 hours per week	1,550	7.2
2.00 to 2.99 hours	5,356	24.2
3.00 to 5.49 hours	7,574	33.3
5.50 to 10.49 hours	4,302	18.8
10.50 to 12.99 hours	1,016	4.2
13.00 to 20.99 hours	1,716	6.8
21.00 hours or greater	747	2.5
TEST COMPOSITE QUARTILE		
Lowest quartile	5,647	25.1
25 - 49 percentile	5,606	24.4
50 - 75 percentile	5,963	25.7
Highest quartile	6,481	24.8
OVERALL MATH PROFICIENCY		
Below Basic	4,395	20.0
Basic	8,569	38.0
Intermediate	4,834	21.0
Advanced	4,175	19.0
Reversals	439	2.0
OVERALL READING PROFICIENCY		
Below Basic	3,166	14.0
Basic	11,759	52.0
Advanced	7,689	34.0
Reversals	212	1.0
POST SECONDARY EDUCATION PLANS		
Won't finish high school	346	1.5
Will graduate from high school	2,339	10.5
Vocational, trade, or business school	2,102	9.4
Will attend college	3,078	13.1
Will graduate from college	10,251	42.8
Higher level after graduating college	6,268	22.7
LANGUAGE USUALLY SPEAKS		
English	23,304	97.8
Spanish	327	1.5
Other Language	240	0.7
TIME SPENT AFTER SCHOOL WITH NO ADULT		
None	3,420	13.3
LT one hour	7,821	32.4
1-2 hours	6,557	27.8
2-3 hours	3,038	12.9
More than 3 hours	3,259	13.6

APPENDIX A--Sample composition, by background variables (numbers and weighted percentages)--Continued

	1988 Eighth Graders	
	Unweighted Number	Weighted Percent
EVER HELD BACK A GRADE?		
No	18,881	82.3
Yes	3,890	17.7
PLANNED HIGH SCHOOL PROGRAM		
College prep, Academic	7,298	29.2
Vocational/technical	4,161	18.0
General	3,369	14.2
Other specialized	1,321	5.4
Don't know	6,026	25.1
Other	1,906	8.1
NUMBER OF SCHOOL DAYS MISSED IN PAST 4 WEEKS		
None	10,795	45.2
1 or 2 days	7,674	33.7
3 or 4 days	2,981	13.3
5 - 10 days	1,239	5.4
More than 10	515	2.3
NUMBER OF TIMES LATE IN PAST 4 WEEKS		
None	14,574	63.1
1 or 2 days	6,034	25.2
3 or 4 days	1,804	7.5
5 - 10 days	598	2.5
More than 10	399	1.6
GEOGRAPHIC REGION		
Northeast	4,933	19.2
North Central	6,127	25.7
South	8,489	35.4
West	5,050	19.7
SCHOOL URBANICITY		
Urban	7,620	25.1
Suburban	10,246	43.6
Rural	6,733	31.3
SCHOOL TYPE		
Public school	19,372	87.9
Catholic school	2,578	7.5
Independent school	1,635	1.0
Other private	1,014	3.6
GRADE SPAN		
K - 8	4,054	14.4
K - 12	1,550	4.3
7 - 12	2,497	8.4
5 - 8	1,493	7.6
6 - 8	6,213	27.2
7 - 8	4,797	20.6
7 - 9	3,995	17.5

APPENDIX B
Methodology and Technical Notes

Appendix B
Methodology and Technical Notes

This appendix documents the National Education Longitudinal Study of 1988 (NELS:88) Base Year sample design, completion rates, accuracy of estimates, statistical procedures, and variables used in this report.

Sample Design

The NELS:88 base year study employed a two-stage, stratified random sample design (Spencer et al. 1990). The population of schools was restricted to "regular" public and private schools with eighth graders in the United States. Excluded from the sample were Bureau of Indian Affairs (BIA) schools, special education schools for the handicapped, area vocational schools that do not enroll students directly, and schools for dependents of U.S. personnel overseas.

In the first stage of the sampling process, 1,052 schools with eighth grades were used for the NCES-sponsored core sample. In order to ensure a balanced sample, schools were stratified by region, urbanicity and minority percentage prior to sampling. To make the sample more useful for policy analysis, private schools were oversampled. Just under 70 percent of the sample schools are original selections, while 30.4 percent are replacement schools (schools drawn from the same sampling stratum to replace an initial selection that refused).

The second stage of the sampling process was the selection of students within schools. In this stage, students who were judged by a representative from the school as unable to complete the survey instruments were identified. Specifically, students identified as mentally handicapped, having physical or emotional problems that would seriously interfere with their ability to complete the survey instruments, or having a language barrier interfering with their completion of the survey instruments were excluded from the sample. About 5.4 percent of the potential sample was excluded for these reasons. Of those students who were excluded, a majority (57%) were excluded for reason of mental disabilities, with most of the rest (35%) excluded for language reasons, and a small number excluded because of physical disabilities (8%). Again for policy analysis reasons, students of Hispanic or of Asian or Pacific Islander (A/PI) origin were oversampled. This oversampling was sponsored by the Office of Bilingual Education and Minority Language Affairs (OBEMLA). On average, 26 students were sampled per school. This two-stage process resulted in the inclusion of over 26,000 eighth graders in the sample.

Completion Rates

Students and their parents participated in the survey in large numbers. A total of

24,599 students participated in the survey by filling out questionnaires. A total of 23,700 students completed the cognitive tests. One parent of each sampled student in the public-use sample was asked to fill out the parent survey. Out of 24,599 eligible students, 22,650 parents completed the survey. A written request stated that the questionnaire should be completed by "the parent who is most familiar with the student's current school situation and educational plans." The parent respondent, therefore, was self-selected.

Teachers and school administrators also participated in NELS:88. Teachers were selected on a pre-assigned basis in two of four subject areas -- mathematics, science, English, social studies (history/ government). Each school was randomly assigned to one of the following combinations of curriculum areas: mathematics and English; mathematics and social studies; science and English; and science and social studies. At any school, each sampled student's current teacher(s) in each of the two designed subject areas was selected to receive a teacher questionnaire. This selection procedure was designed to ensure representation of mathematics or science curriculum and English or social studies in all schools. Using this design, the number of teacher respondents was expected to vary depending on the size and structure of the eighth grade at a particular school. An average of five teachers per school participated. Over 5,000 teachers filled out student-specific evaluations for a total of 23,188 sample students. While the teachers were not selected as a representative sample, their evaluations of sample students are linked to the specific student records, as are parent and school administrator reports. Finally, the school administrator (principal or headmaster) of each sample school was asked to complete a school administrator questionnaire. A total of 1,035 school administrators completed school questionnaires.

The completion rates for the student, parent, and school surveys and the teacher evaluations of students are presented below:

Instrument	Number	Completion Rate Weighted	Completion Rate Unweighted
STUDENT QUESTIONNAIRE	24,599	93.4 %	93.1 %
STUDENT TEST*	23,700	96.5 %	96.3 %
PARENT QUESTIONNAIRE	22,650	93.7 %	92.1 %
STUDENTS WITH TEACHER EVALUATIONS	23,188	95.9 %	94.3 %
SCHOOL QUESTIONNAIRE	1,035	98.9 %	98.4 %

* N and % of cases for which a student questionnaire was obtained for which a cognitive test was also obtained.

Accuracy of Estimates

The statistics in this report are population estimates derived from the sample described in the preceding section. Two broad categories of error occur in such estimates: sampling and nonsampling error. Sampling error occurs because samples are not populations. However, the nature of the error depends upon the sample design, and the error properties of many types of sample designs (including two-stage designs such as the one used in this study) are well known. Nonsampling error occurs not only in sample surveys but also in population censuses.

Nonsampling error may arise from a number of sources, such as the inability to obtain cooperation from each sampled school (school nonresponse), or the inability to obtain information from each sampled student in cooperating schools (student nonresponse). A third source of nonresponse contributing to nonsampling error is found at the item level. Cooperating students may not have answered every question in the survey. In addition, ambiguous definitions, differences in interpreting questions, inability or unwillingness to give correct information, mistakes in recoding or coding data, and other errors of collecting and processing the data can result in nonsampling error.

The precision with which one can use survey results to make inferences to a population depends upon the magnitude of both sampling and nonsampling errors. In large sample surveys, such as the NELS:88 study, sampling errors are generally minimal, except when estimates are made for relatively small subpopulations, such as for American Indians (N=315).

The nonsampling errors are more difficult to estimate. The major sources of nonsampling error considered were school, student, and item-level nonresponse. The NELS:88 base year student response rate was above 93 percent and the item response rates within instruments, for the items used to develop the estimates in this report, were above 95.3 percent. The weights used to calculate the estimates were constructed in a fashion that compensated for instrument nonresponse. Weighting procedures are explained in the NELS:88 Base Year Student User's Manual (Ingels et al. 1990, Chapter 3). The small bias due to nonresponse is documented in the NELS:88 Base Year Sample Design Report (Spencer et al. 1990).

Statistical Procedures

The statistical comparisons in this report were based on the **t** statistic. Generally, whether the statistical test is considered significant or not is determined by calculating a **t** value for the difference between a pair of means or proportions and comparing this value to published tables of values at certain critical levels, called alpha levels. The alpha level is an a priori statement of the probability of inferring

that a difference exists when in fact it does not.

In order to make proper inferences and interpretations from the statistics a number of issues must be kept in mind. First, comparisons resulting in large **t** statistics, may appear to merit special attention. This is somewhat misleading, since the size of the **t** statistic depends not only on the observed differences in means or percentages being compared but also on the number of respondents in the categories used for comparison, and on the degree of variability among respondents within categories. A small difference compared across a large number of respondents could result in a large **t** statistic.

Second, when multiple statistical comparisons are made on the same data it becomes increasingly likely that an indication of a population difference will be erroneously given. Even when there is no difference in the population, at an alpha-level of .05 there is still a 5 percent chance of declaring that an observed **t** value representing one comparison in the sample is large enough to be statistically significant. As the number of comparisons increases, the risk of making such an error in inference also increases.

To guard against errors of inference based upon multiple comparisons, the Bonferroni procedure to correct significance tests for multiple contrasts was used (Myers, 1979). This method corrects the significance (or alpha) level for the total number of contrasts made with a particular classification variable. For each classification variable, there are (K*(K-1))/2 possible contrasts (or nonredundant pairwise comparisons), where K is the number of categories. For example, since SES has four categories, K=4 and there are (4*3)/2=6 possible comparisons between the categories. The Bonferroni procedure divides the alpha-level for a single t-test (for example, .05) by the number of possible pairwise comparisons, to give a new alpha that is corrected for the fact that multiple contrasts are being made.

Standard errors for the estimates in each of the tables are presented in the appendix. The standard errors were calculated using the CTAB program which uses a Taylor series approximation to calculate standard errors based upon complex survey designs. A version of this program is available from NCES upon request. The standard errors reported take into account the clustering in the sampling procedure; they are generally higher than standard errors calculated under the assumptions of simple random sampling.

Interested readers can compute the **t** statistic between estimates from various subgroups presented in the tables using the following formula:

$$t = \frac{P1 - P2}{\text{SQRT}\ (se1 * se1 + se2 * se2)}$$

where **P1** and **P2** are the estimates to be compared and **se1** and **se2** are their corresponding design corrected standard errors.

Variables Used

A number of classification variables have been constructed for analyticai purposes. The classification variables presented in this report are based on datafile variables except for a small number of composites that were constructed differently for the purpose of this report. Most composite variables were constructed using responses from two or more questionnaire items. In some cases, composites were constructed from numerous variables from different databases. Others were constructed by recoding a variable. All of the composite variables are described in detail in appendix D of the student datafile user's manual (Ingels 1990). The classification variables that are composites of school-level characteristics or of respondent demographic characteristics, the psychological scales, and the educational variables that are used in this report are briefly described in this section.

Composites of school-level characteristics provide information about the student's school.

GRADE SPAN classifies the type of school by the grades spanned, based on the report of the school administrator (school questionnaire, item 1). After the unique patterns of grade spans were determined, they were collapsed, creating the following categories.

The grade span categories are as follows:

P or K or 1 through 8 (K-8)
P or K or 1 through 12 (K-12)
6 or 7 or 8 through 12 (7-12)
3 or 4 or 5 through 8 (5-8)
6 through 8 (6-8)
7 through 8 (7-8)
7 through 9/8 through 9 (7-9)

SCHOOL TYPE classifies the school into one of four sampling strata of public, Catholic, independent, or other private. Some of this information was taken directly from the QED file. QED is a standard school universe file maintained by Quality Education Data, and correlates well with the Common Core of Data maintained by the U.S. Department of Education. The list used for sampling independent schools was the membership list of the National Association of Independent Schools. The School Type categories presented in this report differ from those found on the public use data file.

The NELS:88 base year attempted to capture the diversity of private schools through two different schemes of classifying them. The private school sample of NELS:88 comprises diocesan, parish, and religious order controlled Catholic schools; independent schools with no religious affiliation, both members and non-members of NAIS; and other private religious schools, some members of NAIS

(most not), and ranging in affiliation from Lutheran and Jewish to Christian fundamentalist.

Both classification schemes appear on the non-public version of the data tape, though for confidentiality reasons only one of the schemes appears on the public-use files. The first scheme classifies schools by their control into public, Catholic, independent (defined as members of the National Association of Independent Schools) and all other private schools. This classification was employed in analyses for the student descriptive summary, but does not appear on the public-use files.

The second scheme classified schools into public, Catholic, religious other private, and non-religious other private. This classification appears on the NELS:88 base year public-use files. In the two schemes, the public and Catholic school categories are the same, but the remaining private school categories contain somewhat different mixes of schools.

SCHOOL ENROLLMENT categorizes the total school enrollment as reported by the school (School questionnaire, item 2). The categories were created by collapsing the data. Missing data were imputed from the actual enrollment reported in the QED file. The categories are:

1-199 students
200-399
400-599
600-799
800-999
1,000-1,199
1,200+

LOCATION or **URBANICITY** categorizes the students' schools as urban, suburban or rural based on their classification in QED, as drawn from U.S. Census data and definitions. Urban means central city; suburban is the area surrounding a central city but within a county constituting the MSA (or Metropolitan Statistical Area); and rural is outside an MSA.

Other composite and special variables. Many of the classification variables constructed were **respondent demographic characteristics**. SEX and RACE are examples.

SEX (male/female) was taken first from the student questionnaire (item 12). If this source was missing or not available, then the sex variable from school rosters was used. Any records with this variable still missing had sex imputed from the respondent's name, or if that could not be done unambiguously, the value for sex was randomly assigned for the purpose of constructing this composite.

RACE also was constructed from several sources of information. The first source was the student self-report (item 31A). Secondly, if the student information was missing, data from the parent questionnaire were used. A small percentage of students who used the American Indian/Alaskan Native category but whose parents

responded "white not Hispanic" were recoded to "white, not Hispanic" after a subsample of the parents was interviewed as a further check of the validity of student responses. The race categories are Asian/Pacific Islander; Hispanic, regardless of race; Black, not of Hispanic origin; white, not of Hispanic origin; and American Indian or Alaskan Native. Although identification as members of different Hispanic and Asian/Pacific Islander racial/ethnic subgroups was reported by students, these subgroup percentages are not presented in this report.

YEAR OF BIRTH was calculated based on student reports (Q11) of year born. The categories used are: (1974 and later: 14 years old and under; 1973: 15 years old; and 1972 and before: 16 years old and over).

SES (socioeconomic status) was constructed using the following parent questionnaire data: father's educational level, mother's educational level, father's occupation, mother's occupation, and family income (data coming from parent questionnaire items 30, 31, 34B, 37B, and 80). Educational-level data were recoded as for the composite **PARENT EDUCATION**. Occupational data were recoded using the Duncan SEI scale as used in HS&B. Each non-missing component was standardized to a mean of 0 and a standard deviation of 1. Non-missing standardized components were averaged, yielding the SES composite. For cases where all parent data components were missing (8.1 percent of the participants), student data were used to compute the SES. The first four components from the student data are the same as the components used from the parent data (in other words, educational-level data, items 34A and 34B, similarly recoded; occupational data, items 4B and 7B of student questionnaire part one, also recoded). The fifth component for SES from the student data consisted of summing the non-missing household items listed in 35A-P (after recoding "Not Have Item"), calculating a simple mean of these items, and then standardizing this mean. If eight or more of items in 35A-P were nonmissing, this component was computed; otherwise it was set to missing. All components coming from the student data were standardized. Non-missing standardized components were averaged, yielding the SES composite for those cases where parent data were either missing or not available. The student data were used to construct SES if all components based on parent data were missing and at least one component based on student data was not missing. Otherwise SES was set to missing. The actual range for SES is -2.97 through 02.56. SES is divided into quartiles, with 1 = lowest and 4 = highest.

Family variables include HOME LANGUAGE, FAMILY COMPOSITION, PARENT EDUCATION, and FAMILY INCOME.

HOME LANGUAGE characterizes the primary language used in the home by differentiating between English and non-English languages and whether the language was the only language or the dominant among several spoken. The classification is made from the student questionnaire data (items 21 and 22). If no language other than English is spoken, the student is English Only; if the language usually spoken is English, but another language is used, the student is English Dominant. If another language is usually used, then the student is assigned to Non-English Only when no other languauge is spoken in the home or to Non-English Dominant if there is another language used in the home.

FAMILY COMPOSITION categorizes the make-up of the family or household and is taken only from the student questionnaire (item 8A-I). The categories are:

Mother and father
Mother and male guardian
Father and female guardian
Mother only
Father only
Other relative or non-relative
Single Parent household (Mother only, father only or other relative or non-relative)

PARENT EDUCATION is the highest level of education reported by either of the respondent's parents. It was constructed from parent data (parent questionnaire, items 30 and 31), or if these were missing or unavailable, from student data (student questionnaire, items 34A and 34B). Five or six categories were used to report levels of parent education in this report.

The categories are:

Did not Finish High School
High School Graduate
Some College
College Graduate
MA or Equivalent
Ph.D., M.D., or Other Advanced Graduate Degree

When only five categories are presented, MA and Ph.D. are collapsed into the category Graduate Degree.

FAMILY INCOME was taken only from the parent questionnaire (item 80). Fewer family income categories are used in this report than appear on the data file, and income is presented in two categorizations here.

One categorization of family income is as follows:

Less than $15,000
$15,000 - $24,000
$25,000 - $34,999
$35,000 - $50,000
Over $50,000

Income is also reported in three larger categories: Less than $15,000; $15,000 - $50,000; and Over $50,000. Income of

less than $15,000 (considered to be "low income") is taken as the lowest category.

Four **psychological scales**, designed to be as comparable as possible with HS&B and NLS-72, were constructed from various attitude items. These scales are intended to measure LOCUS OF CONTROL and SELF-CONCEPT. Two of the scales, those that correspond most closely to HS&B and NLS-72 items, are used here. Each composite scale is the average of the standardized scores of the questionnaire items of which it is composed. For each scale a quartile ranking was calculated. A measure of reliability, coefficient alpha, was calculated for each of these scales. The coefficient alpha values are: LOCUS = .5750 and SELF-CONCEPT = .7355.

LOCUS OF CONTROL (LOCUS1) was designed to be as comparable as possible with HS&B and NLS-72 data. This variable measures the degree of control the student feels he has over his life. Locus of control items are all in student question 44. They are 44B, 44C, 44F, 44G, 44K, and 44M. Three of these items are comparable (but not identical) to HS&B and NLS-72 items. They are 44C, 44F, and 44G. For the reader's convenience, the NELS:88 items appear below along with the HS&B and NLS-72 items which appear in parentheses.

> 44C: In my life, good luck is more important than hard work for success. (Good luck is more important than hard work for success.)
>
> 44F: Every time I try to get ahead, something or somebody stops me. (Text identical.)
>
> 44G: My plans hardly ever work out, so planning only makes me unhappy. (Planning only makes a person unhappy, since plans hardly ever work out anyway.)
>
> NO COMPARABLE NELS:88 ITEM. (People who accept their condition in life are happier than those who try to change things.)

Each of the three NELS:88 items was standardized separately to a mean of zero and a standard deviation of 1 using the questionnaire completion weight. All nonmissing components were averaged. Any student missing all components was assigned a missing value.

The actual range for LOCUS1 is -3.01 through 1.52, from high external to high internal locus of control.

LOCUS OF CONTROL is presented in this report in tertiles (or thirds). On the public-use data file it appears in tertiles. They show the percent of students who have different degrees of internal and external locus of control. A student who falls in the high external locus of control tertile has a low internal locus of control.

High External Locus of Control (33 percent)

Neither High External nor High Internal (neutral -33 percent)

High Internal Locus of Control (34 percent)

SELF-CONCEPT (CONCEPT1) was designed to be as comparable as possible with HS&B and NLS-72 data. This variable is a measure of student self-esteem. Self-concept items are all in student question 44. They are 44A, 44D, 44E, 44H, 44I, 44J, and 44L. Four of these items are comparable to HS&B and NLS-72 items. They are BYS44A, BYS44D, BYS44E, and BYS44H. These same four items are all reverse scoring items so the values were reversed before performing computations. It is important to note that while comparable, they are not always identical. For the reader's convenience, the NELS:88 items appear below along with the HS&B and NLS-72 items which appear in parentheses.

44A: I feel good about myself. (I take a positive attitude toward myself.)

44D: I feel I am a person of worth, the equal of other people. (I feel I am a person of worth, on an equal plane with others.)

44E: I am able to do things as well as most other people. (Text identical).

44H: On the whole, I am satisfied with myself. (Text identical.)

Each of the above four items was standardized separately to a mean of zero and a standard deviation of 1 using the questionnaire completion weight. All nonmissing components were averaged. Any student missing all components was assigned a missing value.

The actual range for SELF-CONCEPT1 is -3.61 through 1.15, from low to high esteem.

SELF-CONCEPT is presented in tertiles or thirds. Each tertile includes the percentage of students registering a particular higher or lower self-concept.

Low Self-Concept (about 37 percent)
Medium Self-Concept (about 27 percent)
High Self-Concept (about 35 percent)

Educational variables include results of the cognitive tests as well as data reported on questionnaires.

TEST results are reported here in the four subject areas: mathematics, reading, science, and history/government. Cognitive test results are presented here in terms of subject-specific quartiles (with low = 1), in a test composite quartile, and in proficiency levels. The test composite is a standardized test composite for reading and

math, with students falling into quartiles (again with low = 1) depending on their test scores.

The mathematics and reading tests were constructed to be able to measure varying degrees of cognitive difficulties, termed proficiency levels. Students were scored as proficient or not proficient at each level. The definitions of proficiency levels are:

Reading Level 1 (Basic):
Simple reading comprehension including reproduction of detail and/or the author's main thought.

Reading Level 2 (Advanced):
Ability to make inferences beyond the author's main thought and/or understand and evaluate relatively abstract concepts.

Math Level 1 (Basic):
Simple arithmetical operations on whole numbers.

Math Level 2 (Intermediate):
Operations with decimals, fractions, and roots.

Math Level 3 (Advanced):
Simple problem solving, requiring conceptual understanding and/or the development of a solution strategy.

In addition to the results of the cognitive tests, the report presents the educational variables of GRADE AVERAGE, POSTSECONDARY EDUCATION PLANS, and **HOMEWORK**.

GRADE composite is an average, with all non-missing elements equally weighted, of the self-reports of grades from sixth grade until now over the four subject areas (English, math, social studies/history, and science). The source is student questionnaire item 81. The grade average is represented here in quartiles, with low = 1.

POSTSECONDARY EDUCATION PLANS of the student was taken directly from the aspirations stated by the student in response to student question 43. The categories are:

Won't finish high school
Will graduate from high school but won't go further
Will go to vocational, trade, or business school after high school
Will attend college
Will graduate from college
Will attend a higher level of school after graduating from college

HOMEWORK is reported in terms of hours spent on subject-specific homework (in science, math, English, and social studies/history), and a composite of total homework is also reported. The number of hours per week the student reported in student questionnaire item 79A-E is categorized as None, Less than 1 hour, 1 hour, 2 hours, 3 hours, 4-6 hours, 7-9 hours, and 10 or more hours. The homework composite categorizes the total

amount of time the student reported spending on homework each week, in all subjects.

The non-missing recoded values were summed across subjects and assigned to one of the homework categories below.

None
.50 to 1.99 hours
2.00 to 2.99
3.00 to 5.49
5.50 to 10.49
10.50 to 12.99
13.00 to 20.99
21.00 or more

DAYS MISSED and **TIMES LATE** were recategorized for use as classification variables in this report. For Days of School Missed in Past Four Weeks (Student Questionnaire item 75) and Times Late for School in Past Four Weeks (Student Questionnaire item 77), student responses were collapsed into five categories each: None, 1 or 2, 3 or 4, 5 to 10 days, and More than 10 days.

NOMINATED SECTOR or the type of school that the student expects to attend for 10th grade was classified by referring to the QED (Quality Education Data) file and data, based on student response to item 13. The classifications were public, Catholic, and other private.

LEP specifies whether a student has Limited English Proficiency. It was constructed from either the student self-evaluation (items 27A-27D) or the teacher evaluations for student proficiency in using the English langu..ge. Students are categorized as limited English proficient or non-limited English proficient.

LANGUAGE USUALLY SPOKEN indicates which language a student reports he most often spoke. It was taken from student item BYS20, and is grouped into three categories: English, Spanish, and other languages.

COURSE ENROLLMENTS

To assess and improve the accuracy of students' responses to the course-taking questions, various consistency checks were performed. For example, crosstabular analysis of students' responses to a mathematics course-taking question revealed that some students reported taking both algebra and remedial mathematics. Based on this and similar findings, it seemed likely that reports of course-taking were inflated, with students reporting segments of year-long courses as courses. To compensate for this, composite course-taking variables were formed which both showed patterns of responses across courses within a subject area and served to purify students' reports of course-taking. Such adjustments were performed on course-taking in mathematics, science, English, and social studies. Table percentages in this report for these four subjects reflect these adjustments. About 2 percent of the students were inconsistent in reporting course-taking and were

excluded from the analysis. The following course-taking categories were used:

MATH: Taking No Math
Regular Math Only
Regular and Remedial Math OR Remedial Math Only
Advanced Math/Algebra Only OR Algebra/Advanced Math and Regular Math

SCIENCE: Taking No Science
Science With Laboratory
Science Without Laboratory

ENGLISH: Taking No English
English Only
English and Remedial English OR Remedial English Only

Additional row and column variables presented in the tables are taken directly from student responses to questions in the student questionnaire. While these variables need no explanation, a list of these additional questionnaire items is given for the reader who wishes to consult the questionnaire. Items are listed once, under the chapter in which they first appear.

Chapter 1

Students who repeated a grade in school (Item 74).

Grades repeated (Items 74A-I).

Chapter 2

Degree that various discipline problems are a problem in the school (Item 58).

Frequency of cutting class (Item 76).

School activities participated in during current school year, as member or officer (Item 82).

Agreement with statements about school and teachers (for example, there is school spirit) (Item 59).

Chapter 3

Hours a day of television watched during the school year (Item 42).

Hours of reading done on own outside school, not in connection with schoolwork (Item 80).

People who are at home when student returns from school (Item 40).

Average amount of time student spends after school each day at home with no adult present (Item 41).

Outside-school activities participated in, as a member or officer (Item 83).

Hours of work student does for pay (not counting chores around the house) in present or most recent job (Item 53).

Job categories for kind of work student does/did for pay in current or most recent job (not including work around the house) (Item 54).

Chapter 4

How far in school student thinks he will get (Item 45).

How sure student is that he will graduate from high school (Item 46).

Kind of program student expects to enroll in high school (Item 49).

How often student talked with different people about planning a high school program (Item 50).

Kind of work student expects to be doing at age 30 (Item 52).

Number of children who dropped out of school before graduating from high school (Parent Questionnaire, Item 6).

APPENDIX C
Description of Proficiency Levels

Appendix C
Description of Proficiency Levels

Each proficiency score level was marked by four items, which were chosen as having similar difficulty and content. Success, or "passing" a level, was defined as answering at least three of the four items correctly. As described in the text of the report, two such levels were defined for Reading, and three for Mathematics. A description of the skills required to pass each item cluster appears below, along with samples of typical items that might mark each level.

Reading

Students read a story, letter, or poem and are asked questions about its content. The "basic" proficiency level is defined by competence in simple reading comprehension, including reproduction of detail and/or the author's main thought. A typical item at this level might ask the student to interpret something implied but not explicitly stated in the passage. Some examples of items are:

> For what purposes did the character take a specific action? (e.g, why did the boy leave his house?)
>
> What assumptions was the character making in doing so?
>
> What was the outcome of the action? (e.g., what went wrong?)

Being proficient at the highest level (advanced) implies the ability to make inferences beyond the author's main thought and/or to understand and evaluate relatively abstract concepts. At this level the student may be called upon to incorporate his or her understanding or knowledge of ideas beyond the scope of the passage's content. The student might be asked questions such as the following:

> What message did the author intend to convey? (e.g., what is a lesson that can be learned from this story?)
>
> What was the state of mind of the character?
>
> Which phrase is an example of a particular literacy device?

Mathematics

"Basic" level items require the ability to successfully carry out simple arithmetical operations on whole numbers. A typical item format might be to present two quantities and ask the student if the first or the second is larger, if they are equal, or if the size relationship cannot be determined from the information given. The quantities presented might contain arithmetic operations, simple algebraic representations, money or measurements.

Some examples of two quantities that could be compared are:

7 quarters $1.75
c + d . . . . c - d
31 inches . . . . 3 feet

Simple word problems may also be used, such as number sentences.

(John has 20 balls. Sue has 45. How many more balls does Sue have than John)?

"Intermediate" questions require the same basic competencies, plus the addition of mastery of simple operations with decimals, fractions and roots. The "quantitative comparison" format described above might be used, or simple word problems.

Some examples of items at this level include:

19.823/5.734 4

How many pencils are needed to give y pencils to each of 3 students?

"Advanced" level incorporates the ability to successfully master simple problem solving tasks. Unlike the other levels, which require the rote application of rules, performance at this level requires conceptual understanding and/or the development of a solution strategy. Solutions may require some experience with geometry, algebra, or a logical process. Typical word problems might ask:

To give a statement about the area of a particular geometric figure, given the length of a part, such as a radius or side.

To simplify an algebraic expression by combining or cancelling terms.

To determine whether quantities expressed in different terms, such as decimals, fractions, and percents, are equivalent. (e.g., 5/5, 1.00, 100%)

Assigning students to one of three proficiency categories for Reading (less than basic, basic and advanced levels) and four analogous categories for Mathematics was a straightforward process for the majority of test-takers. Most students answered all, or nearly all of the 21 Reading items and the 40 Mathematics items. Even if a student had omitted one or more items in a 4-item cluster, a pass/fail determination could be made as long as the remaining three items had been answered correctly, or at least two were answered incorrectly.

On the Mathematics test, a substantial number of students (about 14%) could not be categorized, the majority because they had omitted some of the items necessary to identify level of proficiency. For about half of these students, it was possible to obtain estimates of the students' skills, using evidence provided by the item

clusters that were present, as well as responses to other items in the rest of the test. This procedure was not applied to reading proficiency, since the amount of missing proficiency level data on this test was relatively small.

Another condition complicating the assignment of proficiency levels was the presence of "reversal" patterns for a small number of students. That is, a student might answer three out of four items at the advanced level correctly, but fail to do so at the basic level that was assumed to underlie higher level skills. Such a reversal pattern might be a result of a few careless mistakes combined with a few lucky guesses, or could be related to lack of motivation. In any case, it would be inconsistent with the building block assumption of the proficiency level model. Students with reversal patterns (about 1% for reading, 5.5% for mathematics) were not included in the summary statistics. Comparison of mean test scores for the "reversal" students with those for the sample as a whole indicated that the missing scores were unlikely to have introduced a systematic bias into the national estimates reported in the text.

For more detail on the proficiency scores, refer to the Base Year Psychometric Report, NCES, in press.

APPENDIX D
Data for Figures

Table 3.2.1--Mean number of hours 1988 eighth graders spent watching television, reading (excluding school assignments), and doing homework, by school sector

		TV Viewing	Non-School Reading	Total Homework	Math Homewk.	Science Homewk.	English Homewk.	Studies Homewk.	Other Homewk.
TOTAL		21.41	1.81	5.55	1.35	0.92	1.05	1.09	1.17
	s.e.	0.119	0.015	0.056	0.019	0.013	0.014	0.016	0.014
	unwt n	20983	23330	22915	23406	23325	23268	23235	23322
SCHOOL TYPE									
Public		21.68	1.79	5.39	1.33	0.90	1.021	.05	1.11
	s.e.	0.130	0.017	0.059	0.020	0.014	0.015	0.016	0.015
	unwt n	16198	18251	17924	18322	18244	18207	18197	18258
Catholic		21.29	1.85	6.33	1.42	1.01	1.15	1.29	1.52
	s.e.	0.379	0.049	0.159	0.052	0.045	0.042	0.071	0.049
	unwt n	2308	2508	2471	2507	2507	2498	2493	2503
Independent Private		14.07	2.18	10.71	2.36	1.81	2.27	2.06	2.24
	s.e.	0.298	0.072	0.414	0.103	0.107	0.103	0.109	0.090
	unwt n	1541	1599	1565	1605	1603	1598	1578	1596
Other Private		17.54	2.11	6.41	1.53	1.10	1.15	1.22	1.42
	s.e.	0.556	0.083	0.386	0.109	0.088	0.080	0.095	0.089
	unwt n	936	972	955	972	971	965	967	965

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 4.3.1.--Standard errors for percentage of eighth graders who discuss the planning of their high school programs with specified person and specified frequency

		Father 3 + Times	Mother 3 + Times	Counselor 3 + Times	Teachers 3 + Times
TOTAL		31.3	52.1	6.0	7.6
	s.e.	0.119	0.459	0.256	0.235
	unwt n	23795	24075	23152	23314
SEX					
Male		32.8	47.5	6.3	7.7
	s.e.	0.542	0.637	0.324	0.308
	unwt n	11784	11907	11400	11508
Female		29.9	56.6	5.7	7.6
	s.e.	0.509	0.576	0.306	0.305
	unwt n	12011	12168	11752	11806
RACE/ETHNICITY					
Asian/Pacific		35.1	42.2	5.7	8.5
	s.e.	1.588	1.619	0.734	0.908
Islander	unwt n	1498	1508	1469	1482
Hispanic		30.2	50.2	5.2	8.4
	s.e.	1.196	1.116	0.516	0.622
	unwt n	2998	3072	2944	2962
Black		27.1	58.9	8.6	11.3
	s.e.	0.930	1.027	0.658	0.674
	unwt n	2791	2886	2721	2751
White		32.2	51.9	5.6	6.9
	s.e.	0.472	0.564	0.308	0.272
	unwt n	16009	16097	15547	15639
American Indian/ Alaskan Native		25.0	41.7	5.1	8.3
	s.e.	2.399	3.073	1.482	1.659
	unwt n	301	307	288	290
EXPECTED HIGH SCHOOL PROGRAM					
College Preparatory		43.4	66.4	8.1	10.8
	s.e.	0.709	0.662	0.500	0.464
	unwt n	7211	7251	7047	7105
Vocational, Technical Business Career		32.1	54.5	5.5	7.1
	s.e.	0.838	0.840	0.492	0.477
	unwt n	4028	4114	3915	3950
General High School		27.2	46.2	6.0	6.9
	s.e.	0.921	1.007	0.513	0.495
	unwt n	3316	3348	3224	3249
Specialized Programs		27.3	55.6	6.3	8.3
	s.e.	1.452	1.625	0.894	0.861
	unwt n	1291	1310	1273	1270
Other		31.0	52.6	5.7	8.4
	s.e.	1.255	1.402	0.592	0.699
	unwt n	1869	1888	1820	1831
Don't Know		19.5	35.9	3.7	4.0
	s.e.	0.625	0.752	0.289	0.284
	unwt n	5865	5941	5671	5701

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

APPENDIX E
Standard Errors and Sample Sizes for Tables

CDC Table 1.1--Standard errors for percentages of eighth graders from families with different levels of education and affluence, by selected background characteristics

	Less Than High School	H.S. Graduate or GED	Some College	College Graduate	Grad. Degree	Un-weighted n	Less Than $15,000	$15,000 to $49,999	Greater than $50,000	Un-weighted n
TOTAL	0.420	0.391	0.477	0.351	0.438	24088	0.576	0.556	0.651	21594
SEX										
Male	0.499	0.526	0.579	0.439	0.510	11982	0.667	0.681	0.738	10743
Female	0.466	0.452	0.578	0.417	0.466	12106	0.663	0.657	0.705	10851
RACE/ETHNICITY										
Asian/Pacific Islander	1.074	1.212	1.537	1.441	1.632	1472	0.613	1.676	1.955	1321
Hispanic	1.674	0.799	1.254	0.598	0.610	3067	1.758	1.519	0.838	2609
Black	0.960	0.913	1.146	0.630	0.669	2920	1.522	1.252	0.844	2592
White	0.300	0.483	0.553	0.427	0.512	16120	0.450	0.629	0.753	14671
American Indian	2.285	2.320	3.351	1.872	1.519	294	4.576	3.979	2.095	221
TEST COMPOSITE										
Lowest Quartile	0.826	0.685	0.824	0.411	0.286	5471	0.997	0.877	0.557	4796
25 - 49%	0.568	0.685	0.762	0.513	0.448	5478	0.837	0.891	0.707	4932
50 - 75%	0.457	0.639	0.785	0.558	0.580	5868	0.681	0.845	0.834	5334
Highest Quartile	0.218	0.528	0.862	0.665	0.898	6411	0.458	1.053	1.145	5858
LANGUAGE PROFICIENCY										
Limited English	3.600	2.174	2.284	0.953	1.903	604	3.446	2.828	1.307	514
Non-Limited English	0.388	0.398	0.481	0.355	0.445	23224	0.560	0.558	0.660	20850
FAMILY COMPOSITION										
Mother & Father	0.468	0.469	0.583	0.441	0.570	15575	0.516	0.729	0.847	14040
Mother & Male Guardian	0.698	0.974	1.098	0.682	0.615	2524	1.111	1.169	0.959	2282
Father & Female Guardian	1.349	1.908	2.504	1.632	1.267	571	1.649	2.434	2.090	507
Mother Only	0.754	0.791	0.915	0.531	0.438	3781	1.138	1.073	0.388	3389
Father Only	1.497	1.947	2.359	1.558	1.416	602	1.982	2.437	1.794	538
Other relative or non-relative	1.776	1.620	2.018	1.296	1.043	726	2.276	2.304	1.270	629
URBANCITY										
Urban	0.815	0.650	0.859	0.662	0.774	7392	1.216	0.966	1.054	6509
Suburban	0.638	0.645	0.815	0.568	0.751	10039	0.788	0.944	1.137	8925
Rural	0.773	0.700	0.790	0.592	0.614	6657	0.868	0.917	0.816	6160

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.2.--Standard errors for percentage of eighth graders from different types of households, by selected background characteristics

	SINGLE PARENT HOUSEHOLD	MOTHER & FATHER IN HOUSEHOLD	MOTHER & GUARDIAN HOUSEHOLD	FATHER & GUARDIAN HOUSEHOLD	MOTHER/FEMALE GUARDIAN ONLY IN HOUSEHOLD	FATHER/MALE GUARDIAN IN HOUSEHOLD	OTHER RELATIVE OR NON-RELATIVE IN HOUSEHOLD	UNWEIGHTED n
TOTAL	0.440	0.505	0.266	0.126	0.364	0.131	0.148	24263
SEX								
Male	0.548	0.609	0.339	0.192	0.447	0.487	0.213	12060
Female	0.519	0.607	0.358	0.162	0.462	0.159	0.180	12203
RACE/ETHNICITY								
Asian/Pacific Islander	1.182	1.348	0.749	0.493	0.857	0.508	0.566	1506
Hispanic	1.063	1.477	0.845	0.298	0.878	0.305	0.395	3110
Black	1.088	1.091	0.703	0.278	0.952	0.352	0.591	2962
White	0.376	0.486	0.322	0.154	0.311	0.156	0.134	16153
American Indian	3.252	3.235	1.917	0.621	2.447	1.149	1.376	314
SES QUARTILE								
Lowest Quartile	0.896	0.952	0.523	0.266	0.756	0.255	0.369	5833
25 - 49%	0.665	0.773	0.520	0.258	0.599	0.227	0.230	5714
50 - 75%	0.619	0.787	0.524	0.248	0.570	0.245	0.225	5762
Highest Quartile	0.504	0.636	0.399	0.217	0.407	0.223	0.195	6948
PARENT EDUCATION								
Less Than high school	1.386	1.462	0.702	0.361	1.084	0.375	0.646	2491
High School Graduate	0.759	0.885	0.582	0.274	0.673	0.279	0.275	4562
Some college	0.564	0.648	0.411	0.204	0.498	0.188	0.194	9475
College graduate	0.679	0.885	0.539	0.314	0.590	0.318	0.296	3612
Graduate degree	0.831	1.027	0.576	0.308	0.667	0.366	0.352	2232
Ph.D/M.D./Other	1.158	1.557	1.175	0.544	1.009	0.536	0.460	1407
LANGUAGE PROFICIENCY								
Limited English	2.445	2.847	1.540	0.808	2.228	0.686	0.962	631
Non-Limited English	0.444	0.511	0.267	0.125	0.366	0.134	0.150	23364
TEST QUARTILE								
Lowest Quartile	0.831	0.917	0.512	0.233	0.727	0.289	0.364	5558
25 - 49%	0.728	0.834	0.501	0.281	0.608	0.227	0.294	5543
50 - 75%	0.675	0.829	0.516	0.269	0.560	0.299	0.250	5912
Highest Quartile	0.546	0.706	0.447	0.191	0.487	0.216	0.160	6421
URBANICITY								
Urban	1.033	1.106	0.483	0.198	0.876	0.238	0.344	7499
Suburban	0.578	0.729	0.443	0.192	0.463	0.223	0.180	10085
Rural	0.654	0.823	0.456	0.252	0.526	0.199	0.283	6679

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.3.--Standard errors for percentage of eighth graders who report repeating one or more grades in school, by year of birth and selected background characteristics

Student Characteristics	REPEATED AT LEAST 1 GRADE	REPEATED 2 OR MORE GRADES	REPEAT K'DRTN	REPEAT 1ST GR	REPEAT 2ND GR	REPEAT 3RD GR	REPEAT 4TH GR	REPEAT 5TH GR	REPEAT 6TH GR	REPEAT 7TH GR	REPEAT 8TH GR	Unweighted n
TOTAL	0.380*	0.586	0.626	0.839	0.629	0.637	0.514	0.476	0.618	0.574	0.594	4369 - *22771
YEAR OF BIRTH												
1974 & later	0.086*	2.489	3.619	3.692	3.366	3.159	2.772	2.946	3.262	3.080	3.740	174 - *14980
1973	0.821*	0.285	0.793	1.011	0.724	0.727	0.571	0.494	0.573	0.553	0.594	3043 - * 6390
1972 & before	1.032*	1.703	0.842	1.494	1.278	1.256	1.110	1.167	1.425	1.400	1.320	1051 - * 1026
SEX												
Male	0.523*	0.780	0.796	1.038	0.841	0.727	0.657	0.634	0.765	0.750	0.719	2607 - *11077
Female	0.451*	0.876	0.867	1.285	0.945	1.086	0.713	0.722	0.743	0.853	0.843	1762 - *11694
RACE/ETHNICITY												
Asian/ Pacific Islander	1.169*	2.352	3.455	3.832	4.093	3.105	2.224	2.774	1.996	1.778	3.559	159 - * 1421
Hispanic	1.259*	1.607	1.198	2.113	1.472	2.207	1.495	1.317	1.827	1.489	1.609	724 - * 2822
Black	1.221*	1.431	0.807	1.631	1.516	1.390	1.269	1.354	1.420	1.238	1.225	772 - * 2557
White	0.392*	0.697	0.832	1.074	0.797	0.760	0.545	0.527	0.654	0.714	0.703	2561 - *15514
American Indian	3.564*	3.882	4.556	4.743	5.188	3.815	4.502	3.597	2.893	4.578	3.095	87 - * 278
SES QUARTILE												
Low 25%	0.866*	1.006	0.851	1.271	1.009	1.018	0.809	0.796	0.980	0.897	0.907	1813 - * 5158
25-49%	0.648*	0.982	1.078	1.445	1.191	1.194	0.914	0.841	0.829	1.075	1.021	1121 - * 5330
50-75%	0.527*	1.033	1.366	1.686	1.437	1.191	1.191	0.917	1.049	1.233	1.201	820 - * 5496
High 25%	0.446*	0.881	1.907	2.126	1.685	1.476	1.252	1.091	1.554	1.282	1.295	610 - * 6782
GRADES												
Low 25%	0.781*	0.937	0.826	1.099	0.938	0.848	0.780	0.733	0.793	0.863	0.942	1933 - * 5102
25-49%	0.710*	0.896	1.125	1.452	1.238	1.233	0.827	0.863	0.934	0.961	0.995	1127 - * 4839
50-75%	0.553*	1.196	1.268	1.942	1.556	1.385	1.197	1.087	1.239	1.258	0.836	814 - * 5797
High 25%	0.331*	1.397	2.212	2.688	2.150	1.947	1.174	1.350	1.383	1.584	1.139	425 - * 6883
LANGUAGE PROFICIENCY												
Limited English	2.278*	2.728	2.786	4.446	3.431	2.720	2.922	2.072	2.235	3.239	4.333	180 - * 513
Non-Limited English	0.382*	0.603	0.643	0.873	0.636	0.652	0.524	0.494	0.639	0.579	0.588	4130 - *22011
PARENT EDUCATION												
LT High School	1.417*	1.532	1.089	1.857	1.467	1.466	1.162	1.242	1.346	1.462	1.225	850 - * 2159
HS Graduate	0.714*	1.112	1.112	1.512	1.174	1.214	0.921	0.973	0.891	1.106	1.205	1037 - * 4215
Some college	0.489*	0.842	0.946	1.369	0.985	0.939	0.774	0.702	0.814	0.840	0.779	1711 - * 8905
College graduate	0.609*	1.236	2.300	2.345	2.487	1.922	0.822	1.390	1.557	1.667	1.618	360 - * 3509
M.A. degree/equivalent	0.703*	1.548	3.608	3.660	3.421	2.561	2.065	2.227	2.437	2.472	1.354	179 - * 2166
Ph.D./equivalent	0.960*	1.353	4.560	5.668	4.373	2.463	3.213	2.820	4.276	3.028	4.294	106 - * 1383

* Unweighted n's for this column are in last column.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.3.--Standard errors for percentage of eighth graders who report repeating one or more grades in school, by year of birth and selected background characteristics--continued

Student Characteristics	REPEATED AT LEAST 1 GRADE	REPEATED 2 OR MORE GRADES	REPEAT K'DRTN	REPEAT 1ST GR	REPEAT 2ND GR	REPEAT 3RD GR	REPEAT 4TH GR	REPEAT 5TH GR	REPEAT 6TH GR	REPEAT 7TH GR	REPEAT 8TH GR	Unweighted n
TOTAL	0.380*	0.586	0.626	0.839	0.629	0.637	0.514	0.476	0.618	0.574	0.594	4369 - *22771
FAMILY COMPOSITION												
Mother & father	0.385*	0.825	0.896	1.137	0.832	0.913	0.673	0.662	0.687	0.685	0.724	2276 - *14849
Mother & guardian	0.951*	1.333	1.413	2.174	1.569	1.505	1.278	1.185	1.315	1.700	1.414	581 - * 2380
Father & guardian	2.052*	3.296	3.112	4.161	3.561	2.708	2.335	2.314	2.375	3.413	2.587	144 - * 521
Mother only	0.884*	1.236	1.125	1.618	1.412	1.205	1.146	1.034	1.063	1.217	1.292	924 - * 3532
Father only	2.016*	2.753	3.509	3.501	3.101	2.497	2.449	2.626	3.102	3.833	1.946	137 - * 555
Other relative or non-relative	2.004*	2.668	2.155	3.079	2.788	2.404	2.157	2.348	2.830	2.528	2.388	241 - * 651
SCHOOL SECTOR												
Public	0.425*	0.619	0.653	0.882	0.658	0.668	0.541	0.498	0.653	0.605	0.629	3803 - *17762
Catholic	0.800*	1.718	2.417	3.154	2.180	2.679	1.686	2.140	1.737	2.029	0.885	278 - * 2467
Independent	0.915*	1.275	4.161	3.182	2.511	2.530	1.894	1.831	2.054	2.480	2.310	191 - * 1580
Other Private	1.074*	3.040	5.131	4.823	5.126	3.584	3.608	2.069	3.151	3.375	3.743	97 - * 962

* Unweighted n's for this column are in last column.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.4--Standard Errors for percentage of eighth graders with one or more risk factors, by selected background characteristics

	No Risk Factors	One Risk Factor	Two or More Risk Factors	Unweighted n
TOTAL	0.642	0.351	0.506	24599
SEX				
Male	0.753	0.509	0.568	12241
Female	0.720	0.466	0.605	12358
RACE/ETHNICITY				
Asian/Pacific Islander	1.720	1.319	1.259	1527
Hispanic	1.337	0.976	1.469	3171
Black	1.118	0.898	1.220	309
White	0.584	0.402	0.400	16317
American Indian	3.744	2.981	3.468	299

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.5--Standard errors for percentage of eighth graders with various risk factors, by selected background characteristics

		Parent is Single	Parents Have No HS Diploma	Limited English Proficiency	Income Less Than $15,000	Has a Sibling Who Dropped Out	Home Alone More Than 3 Hours
TOTAL		0.441	0.425	0.288	0.575	0.278	0.266
	unwt n	24263	24088	24329	21594	21967	24095
SEX							
Male		0.549	0.503	0.302	0.665	0.369	0.365
	unwt n	12060	11982	12107	10743	10918	11905
Female		0.519	0.470	0.316	0.662	0.346	0.363
	unwt n	12203	12106	12222	10851	11049	12190
RACE/ETHNICITY							
Asian/Pacific Islander		1.201	1.028	0.988	1.586	0.844	1.131
	unwt n	1487	1453	1521	1304	1313	1502
Hispanic		1.067	1.693	1.047	1.768	0.886	0.813
	unwt n	3104	3041	3158	2603	2617	3069
Black		1.096	0.965	0.455	1.521	0.739	0.829
	unwt n	2960	2918	2962	2591	2594	2892
White		0.377	0.301	0.139	0.457	0.310	0.292
	unwt n	16149	16116	16125	14667	15012	16089
American Indian		3.630	2.215	4.863	5.120	3.054	2.783
	unwt n	298	278	292	206	203	290

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.6.--Standard errors for percentage of eighth graders in low, medium and high self concept groups, and high external, neutral and high internal locus of control groups, by selected background characteristics

	LOW SELF CONCEPT	MEDIUM SELF CONCEPT	HIGH SELF CONCEPT	UN-WEIGHTED N	HIGH EXTERNAL LOCUS	NEUTRAL LOCUS	HIGH INTERNAL LOCUS	UN-WEIGHTED N
TOTAL	0.419	0.314	0.413	24423	0.436	0.352	0.412	24398
SEX								
Male	0.559	0.452	0.574	12128	0.566	0.488	0.527	12110
Female	0.569	0.436	0.533	12295	0.560	0.504	0.546	12288
RACE/ETHNICITY								
Asian/Pacific Islander	1.563	1.359	1.404	1533	1.516	1.540	1.442	1533
Hispanic	1.040	0.797	1.028	3143	1.091	1.016	1.206	3136
Black	0.815	0.983	1.098	2967	1.084	0.883	1.083	2958
White	0.473	0.374	0.469	16249	0.473	0.409	0.489	16241
American Indian	2.531	2.420	2.939	312	3.284	2.583	3.225	313
SES QUARTILE								
Lowest Quartile	0.778	0.647	0.747	5869	0.808	0.668	0.668	5864
25-49%	0.730	0.614	0.734	5741	0.679	0.684	0.673	5730
50-74%	0.749	0.645	0.780	5802	0.680	0.717	0.725	5799
Highest Quartile	0.713	0.608	0.736	7002	0.616	0.687	0.796	6998
GRADES								
Low 25%	0.762	0.630	0.676	5756	0.721	0.671	0.564	5748
25-49%	0.817	0.732	0.782	5221	0.837	0.775	0.725	5216
50-75%	0.729	0.621	0.743	6082	0.675	0.724	0.757	6077
High 25%	0.648	0.611	0.689	7069	0.551	0.658	0.731	7064
LANGUAGE PROFICIENCY								
Limited English	0.954	0.757	0.891	3674	1.142	0.992	1.168	3665
Non-Limited English	0.453	0.343	0.450	20741	0.442	0.367	0.428	20725
PSE PLANS								
Won't Finish High School	2.873	2.632	2.367	341	2.693	2.200	1.912	336
High School graduate	1.159	0.925	1.007	2332	1.233	1.106	0.849	2330
Vocational, Trade, or Business	1.194	1.106	1.121	2097	1.210	1.091	1.006	2095
Attend college	1.033	0.890	0.925	3071	1.031	0.988	0.933	3070
College graduate	0.553	0.501	0.548	10240	0.513	0.557	0.559	10235
Graduate school	0.697	0.630	0.804	6256	0.650	0.708	0.837	6249

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 1.7--Standard errors for percentage of eighth graders who are enrolled in various school sectors, by selected background characteristics

	Public School	Catholic School	Independent School	Other School	Unweighted n
TOTAL	0.444	0.342	0.063	0.302	3008
GRADE SPAN					
K- 8	4.469	3.793	0.437	1.863	4054
K-12	6.998	0.000	2.053	6.524	1550
7-12	2.766	2.321	0.833	1.347	2497
5- 8	0.094	0.000	0.094	0.000	1493
6- 8	0.070	0.029	0.063	0.000	6213
7- 8	0.728	0.615	0.102	0.379	4797
7- 9	0.562	0.516	0.144	0.169	3995
URBANICITY					
Urban	1.567	1.003	0.324	1.081	7620
Suburban	1.032	0.803	0.160	0.631	10246
Rural	0.808	0.443	0.095	0.673	6733
REGION					
Northeast	1.228	1.186	0.211	0.188	4933
North Central	1.241	1.163	0.136	0.564	6127
South	0.589	0.403	0.122	0.442	8489
West	1.340	0.896	0.111	1.064	5050
RACE/ETHNICITY					
Asian/Pacific Islander	1.657	1.231	0.449	1.045	1546
Hispanic	1.333	1.238	0.078	0.466	3177
Black	1.403	1.358	0.128	0.359	3011
White	0.628	0.504	0.084	0.391	16321
American Indian	1.830	0.958	0.137	1.307	315
SES QUARTILE					
Lowest Quartile	0.334	0.311	0.018	0.116	5934
25-49%	0.545	0.504	0.023	0.221	5788
50-74%	0.618	0.514	0.049	0.360	5836
Highest Quartile	1.263	0.892	0.256	0.977	7030
PARENT EDUCATION					
Less Than High School	0.417	0.382	0.017	0.165	2537
High School Graduate	0.567	0.509	0.021	0.261	4625
Some College	0.478	0.420	0.030	0.242	9586
College graduate	1.102	0.818	0.150	0.816	3654
M.A. degree/Equivalent	1.401	1.012	0.303	0.997	2254
Ph.D/Equivalent	2.441	1.572	0.827	2.049	1432
TEST QUARTILE					
Lowest Quartile	0.445	0.397	0.044	0.193	5647
25-49%	0.526	0.430	0.062	0.311	5606
50-74%	0.727	0.568	0.065	0.478	5963
Highest Quartile	0.980	0.724	0.248	0.686	6481

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 2.1.--Standard errors for percentage of students in various racial/ethnic and language groups who are proficient at each mathematics proficiency level

	Sample	Below Basic		Basic		Intermediate		Advanced	
	N	%	SE	%	SE	%	SE	%	SE
TOTAL	23628	18.83	0.57	40.20	0.71	22.14	0.61	18.83	0.57
RACE/ETHNICITY:									
Asian	1495	13.35	1.97	30.73	2.67	21.21	2.37	34.71	2.76
Hispanic	2996	27.62	1.83	46.84	2.04	16.86	1.53	8.68	1.15
Black	2860	28.87	1.90	49.40	2.09	16.48	1.55	5.25	0.93
White	15753	15.45	0.65	37.88	0.87	24.28	0.77	22.40	0.74
American Indian	307	32.32	5.98	49.83	6.39	13.03	4.30	4.82	2.74
LANGUAGE YOU USUALLY SPEAK NOW:									
English	22447	18.34	0.58	40.10	0.73	22.40	0.62	19.16	0.59
Spanish	296	34.43	6.19	43.00	6.45	14.43	4.58	8.13	3.56
Other Language	226	28.86	6.75	30.01	6.83	14.11	5.19	27.02	6.62

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 2.2.--Standard errors for percentage of students in various language groups who are proficient at each reading proficiency level

Student Characteristics	Below Basic	Basic	Advanced	Unweighted n
TOTAL	0.50	0.73	0.69	22614
RACE/ETHNICITY				
Asian/Pacific Islander	2.06	2.89	2.81	1426
Hispanic	1.67	2.02	1.65	2832
Black	1.78	2.07	1.63	2642
White	0.54	0.89	0.87	15225
American Indian	5.69	6.32	4.61	291
Usually speaks English	0.51	0.75	0.71	22399
Usually speaks Spanish	6.12	6.461	3.90	294
Usually speaks other languages	6.74	7.43	5.68	226

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 2.3.--Standard errors for percentages of eighth graders classified into selected quartiles based on self-reported grades from grade 6 until grade 8, by selected background characteristics

Student Characteristics	Lowest Quartile	25-49%	50-74%	Highest Quartile	Unweighted n
TOTAL	0.428	0.332	0.331	0.453	24292
SEX					
Male	0.560	0.449	0.465	0.531	12068
Female	0.509	0.456	0.463	0.605	12224
RACE/ETHNICITY					
Asian and Pacific Islander	1.333	1.276	1.214	1.855	1506
Hispanic	1.102	0.853	1.006	0.989	3117
Black	1.212	0.916	0.977	0.921	2952
White	0.495	0.382	0.385	0.523	16163
American Indian	2.626	2.619	2.739	2.157	292
HOMEWORK PER WEEK					
None	2.163	1.506	1.672	1.790	636
Less than 2 Hours	1.340	1.165	1.254	1.236	1537
2-2.99 Hours	0.769	0.681	0.645	0.753	5324
3-5.49 Hours	0.638	0.557	0.624	0.645	7531
5.5-10.49 Hours	0.730	0.703	0.803	0.956	4290
10.5-12.99 Hours	1.434	1.425	1.711	1.881	1004
13-20.99 Hours	1.105	1.132	1.279	1.481	1696
21 or more Hours	1.875	1.754	1.940	2.390	742
TEST COMPOSITE QUARTILE					
Lowest Quartile	0.886	0.732	0.654	0.384	5488
25-49%	0.754	0.719	0.690	0.569	5552
50-74%	0.665	0.633	0.696	0.811	5929
Highest Qusrtile	0.329	0.492	0.654	0.822	6445

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 2.4.--Standard errors for percentages of eighth graders who report enrolling in various math courses or combinations of math courses, by selected background characteristics

	Advanced Math/ Algebra	Regular Math Only	Remedial Math	No Math	Unweighted n
TOTAL	0.644	0.612	0.186	0.121	23392
SEX					
Male	0.719	0.687	0.268	0.176	11481
Female	0.740	0.732	0.229	0.156	11911
RACE					
Asian/ Pacific Islander	1.957	1.800	0.804	0.676	1454
Hispanic	1.255	1.224	0.722	0.429	2943
Black	1.208	1.316	0.568	0.398	2719
White	0.786	0.744	0.207	0.130	15774
American Indian	2.348	2.820	2.096	1.118	303
MATH TEST					
Lowest Quartile	0.594	0.829	0.540	0.329	5151
25-49%	0.787	0.844	0.352	0.235	5409
50-74%	1.125	1.104	0.253	0.185	5487
Highest Quartile	1.11°	1.096	0.140	0.131	6498
MATH HOMEWORK					
None	1.131	1.324	0.827	0.541	1871
Less Than 1 Hour	0.708	0.701	0.279	0.180	9456
1 Hour	0.938	0.914	0.341	0.223	5232
2 Hours	1.270	1.285	0.473	0.261	2427
3 Hours	1.533	1.545	0.400	0.338	1775
4-6 Hours	1.656	1.602	0.410	0.298	1688
7-9 Hours	3.705	3.411	0.783	0.546	284
10 or More Hours	4.713	4.381	1.092	2.501	151
SCHOOL TYPE					
Public	0.681	0.649	0.200	0.132	18321
Catholic	2.449	2.215	0.744	0.385	2495
Independent	3.133	2.795	0.467	0.306	1596
Other Private	4.090	4.218	0.461	0.378	980

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 2.5.--Standard errors for percentages of eighth graders who report enrolling in a science course with laboratory, science class without laboratory, or no science course, by selected background characteristics

	Science With Lab	Science Without Lab	No Science	Unweighted n
TOTAL	0.657	0.697	0.329	21489
SEX				
Male	0.735	0.777	0.342	10534
Female	0.743	0.784	0.376	10955
RACE				
Asian/ Pacific Islander	1.698	2.262	2.391	1340
Hispanic	1.254	1.590	1.033	2762
Black Non-Hispanic	1.230	1.556	1.209	2529
White Non-Hispanic	0.782	0.789	0.251	14384
American Indian	2.863	3.383	1.294	288
SCIENCE TEST				
Lowest Quartile	0.799	0.919	0.532	4948
25-49%	0.786	0.831	0.372	5068
50-74%	0.919	0.937	0.324	5408
Highest Quartile	1.130	1.128	0.380	5262
SCIENCE HOMEWORK				
None	1.072	1.391	1.174	3500
Less Than 1 Hour	0.755	0.764	0.216	9533
1 Hour	0.958	0.978	0.348	4308
2 Hours	1.360	1.376	0.368	1925
3 Hours	1.746	1.799	0.614	1024
4-6 Hours	2.326	2.397	0.766	518
7-9 Hours	5.676	5.715	1.431	107
10 or More	7.490	7.489	0.297	59
SCHOOL TYPE				
Public	0.712	0.760	0.372	16991
Catholic	2.134	2.151	0.383	2432
Independent	3.902	3.801	1.999	1161
Other Private	3.069	3.079	0.855	905

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 2.6.--Standard errors for percentages of eighth graders who report enrolling in regular English, remedial English, or no English class, by selected background characteristics

	Regular English Only	Remedial/ Rem. & Regular English	No English	Unweighted n
TOTAL	0.361	0.307	0.175	23242
SEX				
Male	0.475	0.394	0.243	11397
Female	0.418	0.368	0.215	11845
RACE				
Asian/ Pacific Islander	1.372	1.220	0.684	1448
Hispanic	0.968	0.967	0.591	2902
Black	0.926	0.743	0.637	2657
White	0.396	0.346	0.170	15746
American Indian	2.710	2.158	1.718	296
READING TEST				
Lowest Quartile	0.753	0.657	0.468	5189
25%-49%	0.611	0.533	0.311	5391
50%-74%	0.545	0.491	0.217	5466
Highest Quartile	0.474	0.444	0.144	6365
ENGLISH HOMEWORK				
None	0.932	0.736	0.607	2404
Less Than 1 Hour	0.468	0.397	0.241	10450
1 Hour	0.589	0.521	0.278	5052
2 Hours	0.821	0.756	0.378	2331
3 Hours	1.040	0.917	0.547	1296
4-6 Hours	1.379	1.194	0.665	850
7-9 Hours	3.895	3.001	1.857	202
10 or More	5.995	5.842	1.808	84
SCHOOL TYPE				
Public	0.382	0.316	0.195	18170
Catholic	1.351	1.337	0.424	2496
Independent	1.250	1.190	0.346	1599
Other Private	1.483	1.512	0.454	977

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 2.7.--Standard errors for percentages of eighth graders who report participating in various school-based extracurricula activities, by selected background characteristics

		Science Fairs	School Varsity Sports	Intra-mural Sports	Band/ Orchesta Chorus/ Choir	Dance/ Drama	Student Newsp./ Yearbk.
TOTAL		0.945	0.573	0.533	0.608	0.547	0.528
	unwt n	22546	22578	22423	22560	22521	22397
SEX							
Male		0.996	0.693	0.690	0.671	0.636	0.611
	unwt n	10997	11029	10921	10979	10964	10889
Female		1.013	0.672	0.653	0.774	0.685	0.643
	unwt n	11549	11549	11502	11581	11557	11508
RACE							
Asian/Pacific Islander		2.152	1.823	1.932	1.738	1.689	1.674
	unwt n	1388	1387	1378	1387	1388	1378
Hispanic		1.304	2.053	1.253	1.106	1.070	1.080
	unwt n	2829	2835	2822	2845	2833	2817
Black		1.738	1.188	1.319	1.245	1.102	1.090
	unwt n	2538	2540	2517	2544	2533	2520
White		1.129	0.667	0.606	0.731	0.664	0.627
	unwt n	15320	15342	15237	15315	15296	15215
American Indian		3.922	2.780	4.734	3.752	3.167	2.837
	unwt n	279	284	282	281	282	279
GRADE COMPOSITE							
Lowest Quartile		1.045	0.887	0.798	0.826	0.792	0.699
	unwt n	5170	5177	5123	5165	5174	5139
25-49%		1.083	0.912	0.890	0.882	0.833	0.762
	unwt n	4786	4798	4763	4792	4777	4730
49-74%		1.154	0.878	0.879	0.902	0.813	0.701
	unwt n	5678	5675	5637	5684	5663	5641
Highest Quartile		1.276	0.898	0.847	0.979	0.818	0.869
	unwt n	6738	6754	6732	6744	6733	6712
SCHOOL TYPE							
Public		0.998	0.613	0.581	0.639	0.592	0.522
	unwt n	17639	17643	17523	17650	17620	17507
Catholic		3.829	2.090	1.703	2.315	1.966	2.944
	unwt n	2424	2435	2422	2419	2422	2418
Independent		4.496	2.747	3.048	2.812	2.470	2.713
	unwt n	1541	1558	1544	1553	1551	1546
Other Private		5.918	2.678	2.339	3.854	2.249	3.338
	unwt n	942	942	934	938	928	926

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 2.8.--Standard errors for percentage of eighth graders agreeing or strongly agreeing with various statements about their schools, by selected characteristics

Student Characteristics		Statements About Schools						
		Students & Teachers Get Along	There Is Real School Spirit	Discipline Is Fair	The Teaching Is Good	Teachers are Interested In Students	Teachers Praise My Effort	Teachers Really Listen to Me
TOTAL		0.498	0.580	0.468	0.399	0.443	0.452	0.427
	unwt n	24050	24031	23851	23891	23866	23929	23898
SEX								
Male		0.597	0.672	0.567	0.517	0.573	0.580	0.573
	unwt n	11892	11871	11802	11800	11816	11818	11803
Female		0.630	0.690	0.581	0.478	0.536	0.585	0.521
	unwt n	12158	12160	12049	12091	12050	12101	12095
RACE/ETHNICITY								
Asian/ Pacific Islander		1.507	1.756	1.466	1.250	1.373	1.616	1.410
	unwt n	1507	1496	1489	1491	1490	1496	1492
Hispanic		1.155	1.226	1.061	1.136	1.044	0.963	1.067
	unwt n	3054	3052	3017	3023	3029	3027	3021
Black		1.123	1.378	1.136	0.992	0.951	1.052	1.070
	unwt n	2858	2852	2804	2825	2824	2831	2830
White		0.578	0.688	0.553	0.466	0.523	0.522	0.510
	unwt n	16109	16113	16030	16038	16010	16062	10639
American Indian		3.313	2.615	2.642	2.846	2.708	2.638	2.608
	unwt n	309	307	304	301	303	302	304
SOCIOECONOMIC STATUS								
Lowest Quartile		0.847	0.808	0.803	0.702	0.731	0.754	0.734
	unwt n	5700	5689	5621	5649	5642	5653	5648
25-49%		0.809	0.851	0.792	0.681	0.751	0.829	0.803
	unwt n	5661	5658	5611	5616	5615	5633	5626
50-74%		0.774	0.915	0.754	0.619	0.728	0.732	0.744
	unwt n	5722	5716	5682	5695	5681	5695	5681
Highest Quartile		0.797	0.876	0.747	0.625	0.771	0.807	0.708
	unwt n	6959	6961	6930	6924	6920	6941	6935

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 2.8.--Standard errors for percentage of eighth graders agreeing or strongly agreeing with various statements about their schools, by selected characteristics--Continued

Student Characteristics		Statements About Schools						
		Students & Teachers Get Along	There is Real School Spirit	Discipline is Fair	The Teaching is Good	Teachers are Interested In Students	Teachers Praise My Effort	Teachers Really Listen to Me
TOTAL		0.498	0.580	0.468	0.399	0.443	0.452	0.427
	unwt n	24050	24031	23851	23891	23866	23929	23898
GRADE COMPOSITE								
Lowest Quartile		0.805	0.866	0.780	0.747	0.765	0.747	0.741
	unwt n	5603	5599	5541	5560	5552	5563	5554
25-49%		0.838	0.842	0.767	0.683	0.783	0.795	0.830
	unwt n	5127	5126	5076	5087	5087	5096	5099
50-74%		0.762	0.853	0.729	0.639	0.691	0.838	0.722
	unwt n	6031	6027	5987	5996	5980	5997	5986
Highest Quartile		0.735	0.811	0.693	0.541	0.597	0.697	0.629
	unwt n	7028	7022	6996	6991	6987	7013	7000
SCHOOL DAYS MISSED								
None		0.645	0.689	0.628	0.475	0.542	0.619	0.569
	unwt n	10738	10731	10669	10681	10676	10708	10693
1 or 2 Days		0.683	0.753	0.632	0.577	0.645	0.657	0.645
	unwt n	7639	7632	7581	7587	7591	7611	7601
3 or more Days		0.908	0.885	0.867	0.790	0.784	0.861	0.831
	unwt n	4695	4699	4650	4669	4649	4668	4677
TIMES LATE FOR SCHOOL								
None		0.550	0.624	0.544	0.430	0.494	0.561	0.509
	unwt n	14504	14492	14419	14411	14417	14458	14445
1 or 2 Days		0.786	0.818	0.811	0.694	0.691	0.830	0.748
	unwt n	6002	6003	5949	5983	5952	5974	5968
3 or more Days		1.208	1.221	1.185	1.033	1.141	1.101	1.113
	unwt n	2775	2773	2738	2750	2752	2761	2763
SCHOOL TYPE								
Public		0.555	0.687	0.500	0.428	0.481	0.501	0.463
	unwt n	18872	18846	18705	18736	18722	18767	18740
Catholic		1.942	2.124	1.879	1.639	1.664	1.871	1.753
	unwt n	2554	2558	2541	2546	2530	2549	2543
Independent		1.318	1.669	1.338	0.823	0.993	1.415	1.259
	unwt n	1623	1627	1613	1615	1619	1619	1619
Other Private		2.132	2.686	2.328	1.998	1.708	1.647	1.941
		1001	1000	992	994	995	994	996

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 2.9--Standard errors for percentages of eighth graders reporting various safety-related occurrences in their school, by selected background characteristics

Background characteristics		I fought with a student	Something was stolen from me	Someone offered to sell me drugs	Someone threatened to hurt me	I don't feel safe at school
TOTAL	S.E.	0.381	0.484	0.281	0.429	0.309
	unwt n	24124	23986	23947	23957	23874
SEX						
Male	S.E.	0.574	0.600	0.402	0.586	0.412
	unwt n	11938	11824	11804	11804	11800
Female	S.E.	0.384	0.641	0.309	0.554	0.378
	unwt n	12186	12162	12143	12153	12074
RACE/ETHNICITY						
Asian and Pacific Islander	S.E.	1.295	1.687	0.677	1.251	1.115
	unwt n	1493	1488	1487	1486	1471
Hispanic	S.E.	1.099	1.284	0.837	0.856	0.848
	unwt n	3067	3031	3024	3028	3010
Black	S.E.	1.134	1.192	0.572	1.015	0.929
	unwt n	2893	2869	2861	2862	2824
White	S.E.	0.417	0.575	0.334	0.522	0.310
	unwt n	16121	16051	16028	16035	16029
American Indian and Native Alaskan	S.E.	3.747	3.273	2.071	2.640	2.346
	unwt n	293	290	292	292	284
SOCIOECONOMIC STATUS						
Lowest Quartile	S.E.	0.730	0.826	0.520	0.793	0.583
	unwt n	5744	5702	5690	5695	5632
25 - 49%	S.E.	0.650	0.803	0.487	0.742	0.532
	unwt n	5674	5630	5633	5630	5620
50 - 75%	S.E.	0.640	0.801	0.520	0.680	0.475
	unwt n	5735	5715	5703	5706	5691
Highest Quartile	S.E.	0.554	0.785	0.440	0.630	0.438
	unwt n	6964	6932	6925	6929	6923
SCHOOL TYPE						
Public	S.E.	0.417	0.512	0.316	0.473	0.344
	unwt n	18940	18830	18796	18808	18720
Catholic	S.E.	1.203	2.004	0.448	0.851	1.683
	unwt n	2562	2547	2546	2546	2542
Independent Private	S.E.	1.576	2.428	0.943	1.846	0.726
	unwt n	1623	1620	1617	1614	1621
Other Private	S.E.	1.380	2.598	0.425	1.488	1.107
	unwt n	999	989	988	989	991
URBANICITY						
Urban	S.E.	0.781	0.924	0.564	0.772	0.710
	unwt n	7467	7417	7407	7406	7376
Suburban	S.E.	0.503	0.766	0.449	0.599	0.438
	unwt n	10023	9968	9952	9959	9918
Rural	S.E.	0.765	0.881	0.489	0.905	0.497
	unwt n	6634	6601	6588	6592	6580

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 3.1--Standard errors for average number of hours spent per week on outside reading, homework and watching television, by background characteristics

		Television Viewing	Outside Reading	Total Homework
TOTAL	s.e.	0.119	0.015	0.056
	unwt n	20983	23330	22915
SEX				
Male	s.e.	0.144	0.018	0.068
	unwt n	10362	11446	11260
Female	s.e.	0.156	0.022	0.069
	unwt n	10621	11884	11655
RACE/ETHNICITY				
Asian/Pacific Islander	s.e.	0.398	0.060	0.232
	unwt n	1311	1429	1394
Hispanic	s.e.	0.295	0.034	0.107
	unwt n	2427	2920	2869
Black	s.e.	0.270	0.037	0.121
	unwt n	2163	2677	2608
White	s.e.	0.131	0.019	0.069
	unwt n	14679	15787	15537
American Indian/ Alaskan Native	s.e.	0.839	0.100	0.290
	unwt n	218	280	277

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE FIGURES 3.1 & 3.2.--Standard errors for average number of hours per week eighth graders spent watching television, reading, and doing homework, by school type

		Television Viewing	Non-school Reading	Total Homework
TOTAL		0.119	0.015	0.056
	unwt n	20983	23330	22915
SCHOOL TYPE				
Public		0.130	0.017	0.059
	unwt n	16198	18251	17924
Catholic		0.379	0.049	0.159
	unwt n	2308	2508	2471
Independent		0.298	0.072	0.414
	unwt n	1541	1599	1565
Other Private		0.556	0.083	0.386
	unwt n	936	972	955

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 3.2.--Standard errors for percentage of eighth graders who usually have no one home when they return home from school, by selected background characteristics

Student Characteristics	Usually No One Home When R Returns Home From School	Unweighted n
TOTAL	0.331	22390
RACE/ETHNICITY		
Asian and Pacific Islander	1.199	1429
Hispanic	0.935	2820
Black	0.747	2603
White	0.399	15069
American Indian and Native Alaskan	2.042	279
SES QUARTILE		
Lowest Quartile	0.503	5257
25-49%	0.580	5234
50-74%	0.636	5356
Highest Quartile	0.643	6538
FAMILY INCOME		
Less than $15,000	0.632	3914
$15,000 - $24,999	0.739	3431
$25,000 - $34,999	0.686	3514
$35,000 - $50,000	0.767	3976
Over $50,000	0.733	4908
PARENTS' EDUCATION		
Did Not Finish High School	0.745	2208
High School Graduate	0.658	4187
Some College	0.476	8743
College Graduate	0.820	3368
MA degree/Equivalent	1.078	2098
Ph.D., M.D.,/Equivalent	1.348	1349

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 3.3.--Standard errors for percentages of 1988 eighth graders spending various numbers of hours after school each day at home with no adult present, by selected background characteristics

	None -- Never Happens	Less Than 1 Hour	1-2 Hours	2-3 Hours	More Than 3 Hrs.	Unweighted n
TOTAL	0.269	0.344	0.366	0.258	0.262	24095
SEX						
Male	0.347	0.493	0.494	0.385	0.365	11906
Female	0.381	0.511	0.515	0.347	0.355	12189
RACE/ETHNICITY						
Asian/ Pacific Islander	1.129	1.465	1.310	1.061	1.092	1521
Hispanic	0.942	0.904	0.997	0.686	0.822	3075
Black	0.761	0.900	0.896	0.678	0.827	2894
White	0.299	0.409	0.442	0.310	0.289	16093
American Indian	2.572	2.554	2.438	2.087	2.519	305
SES QUARTILE						
Lowest Quartile	0.611	0.694	0.612	0.451	0.527	5754
25-49%	0.500	0.709	0.690	0.505	0.498	5659
50-74%	0.463	0.684	0.707	0.530	0.542	5730
Highest Quartile	0.436	0.712	0.695	0.475	0.419	6946
SCHOOL TYPE						
Public	0.290	0.373	0.400	0.284	0.287	18931
Catholic	0.904	1.107	1.094	0.756	0.749	2553
Independent	1.214	1.460	1.472	0.840	0.832	1612
Other Private	1.165	1.697	1.504	0.948	0.928	999

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 3.4.--Standard errors for percentages of 1988 eighth graders participating in outside-school activities, by selected background characteristics

		Any Activity Outside School	Scout-ing	Relig. Youth Groups	Hobby Clubs	Neigh-borhood Clubs/ Programs	Boys/ Girls' Clubs	Non-school team sports	4-H	'Y' or Other Youth Groups	Summer Programs
TOTAL		0.499	0.305	0.476	0.301	0.274	0.301	0.433	0.335	0.327	0.351
	unwt n	24599	22253	22213	22150	22097	22066	22120	21962	21841	22048
SEX											
Male		0.629	0.488	0.586	0.447	0.396	0.399	0.605	0.384	0.446	0.447
	unwt n	12242	10835	10787	10749	10713	10706	10759	10650	10592	10708
Female		0.578	0.354	0.622	0.371	0.355	0.370	0.552	0.426	0.430	0.489
	unwt n	12357	11418	11426	11401	11384	11360	11361	11312	11249	11340
RACE/ETHNICITY											
Asian/ Pacific Islander		1.410	1.076	1.459	1.290	1.099	0.912	1.581	0.777	1.037	1.495
	unwt n	1546	1374	1371	1366	1364	1359	1363	1361	1357	1366
Hispanic		1.083	0.665	0.936	0.886	0.856	0.833	1.580	0.602	0.785	1.019
	unwt n	3177	2795	2784	2781	2777	2774	2767	2756	2731	2763
Black		1.570	0.895	1.104	0.919	1.000	0.997	1.093	0.940	1.042	1.100
	unwt n	3011	2499	2486	2487	2464	2478	2470	2448	2446	2471
White		0.520	0.355	0.574	0.328	0.285	0.317	0.495	0.404	0.374	0.377
	unwt n	16321	15123	15116	15060	15040	15002	15063	14949	14857	15000
American Indian		2.652	2.286	2.531	2.214	2.019	2.448	3.204	2.373	2.265	2.406
	unwt n	315	275	272	273	272	273	274	272	267	267
SES QUARTILE											
Lowest Quartile		0.884	0.556	0.691	0.600	0.597	0.615	0.799	0.629	0.592	0.613
	unwt n	5935	5132	5106	5107	5096	5085	5077	5075	5029	5080
25-49%		0.795	0.529	0.708	0.563	0.525	0.510	0.767	0.530	0.577	0.605
	unwt n	5788	5215	5202	5193	5186	5179	5182	5145	5129	5151
50-74%		0.715	0.582	0.783	0.556	0.504	0.479	0.751	0.496	0.599	0.601
	unwt n	5835	5339	5340	5307	5299	5282	5311	5258	5244	5297
Highest Quartile		0.557	0.597	0.846	0.539	0.488	0.450	0.805	0.471	0.587	0.708
	unwt n	7030	6561	6559	6537	6510	6514	6545	6478	6433	6514
URBANICITY											
Urban		0.950	0.571	0.937	0.587	0.647	0.635	0.739	0.398	0.638	0.766
	unwt n	7621	6851	6822	6820	6794	6793	6793	6742	6697	6772
Suburban		0.801	0.481	0.732	0.452	0.396	0.434	0.650	0.459	0.467	0.509
	unwt n	10246	9240	9235	9195	9177	9154	9197	9121	9088	9165
Rural		0.858	0.534	0.897	0.561	0.432	0.542	0.864	0.792	0.638	0.604
	unwt n	6732	6162	6156	6135	6126	6119	6130	6099	6056	6111

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 3.5--Standard errors for percentage of eighth graders reporting various jobs ever worked for pay, by selected background characteristics

Student Characteristics	Have not Worked for Pay	Lawn Work	Waiter/ Odd jobs Other	News-paper Route	Baby-sitting or Child Care	Farm/ Other Manual Labor	Clerk/ Sales/ Office Clerical	Unweighted n
TOTAL	0.381	0.319	0.327	0.222	0.434	0.293	0.154	23155
SEX								
Male	0.446	0.591	0.487	0.385	0.260	0.516	0.242	11387
Female	0.543	0.172	0.356	0.161	0.653	0.176	0.189	11768
RACE/ETHNICITY								
Asian/ Pacific Islander	1.620	1.059	1.075	0.715	1.505	0.794	0.727	1455
Hispanic	1.114	0.682	0.893	0.513	1.072	0.743	0.791	2953
Black	0.996	0.899	0.846	0.458	1.031	0.44	0.444	2770
White	0.382	0.375	0.374	0.275	0.501	0.354	0.149	15459
American Indian	2.144	2.708	2.629	1.722	3.046	1.580	1.044	280

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 4.1,4.2 & Figure 4.1--Standard errors for percentages of eighth graders who plan to attend various types of high schools, by selected background characteristics

	Public	Private Religious	Private Non-Religious	Don't Know	Unweighted n
TOTAL	0.428	0.374	0.200	0.137	24156
SEX					
Male	0.534	0.448	0.240	0.193	12001
Female	0.466	0.417	0.200	0.163	12155
8th GRADE SCHOOL TYPE					
Public	0.201	0.117	0.064	0.141	19061
Catholic	2.406	2.434	0.297	0.444	2547
Independent	1.504	3.787	4.216	0.566	1593
Other Private	4.299	5.341	4.709	1.364	955
URBANICITY					
Urban	1.005	0.865	0.461	0.383	7466
Suburban	0.745	0.715	0.140	0.149	10035
Rural	0.671	0.159	0.538	0.233	6655
RACE					
Asian/Pacific Isl.	1.505	1.500	0.550	0.552	1509
Hispanic	1.135	1.043	0.178	0.454	3105
Black	0.990	0.862	0.253	0.447	2939
White	0.545	0.478	0.266	0.123	16077
American Indian	3.139	1.262	1.013	2.573	309
PARENTS' EDUCATION					
LT High Sch. Grad	0.569	0.288	0.128	0.489	2479
H.S. Graduate/GED	0.573	0.465	0.143	0.274	4562
Some College	0.439	0.382	0.141	0.174	9426
College Graduate	1.015	0.841	0.626	0.295	3592
Advanced Degree	1.342	1.214	0.677	0.323	3612
SOCIOECONOMIC STATUS					
Lowest Quartile	0.410	0.246	0.100	0.316	5808
25-49%	0.487	0.398	0.136	0.217	5698
50-74%	0.584	0.517	0.197	0.215	5737
Highest Quartile	1.068	0.962	0.578	0.225	6905

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Figure 4.2 & Table 4.3.--Standard errors for percentages of eighth graders planning to enroll in various high school programs, by selected background characteristics

	College Prep / Academic	Vocat./ Tech./ Business	General H.S. Program	Other Spclzd. Program	Other	Don't Know	Unweighted n
TOTAL	0.519	0.345	0.327	0.189	0.214	0.408	24081
SEX							
Male	0.563	0.471	0.399	0.214	0.296	0.506	11914
Female	0.717	0.448	0.449	0.296	0.285	0.532	12167
RACE							
Asian/Pacific Isl.	1.703	1.347	0.946	0.586	0.844	1.221	1508
Hispanic	1.193	0.982	0.682	0.553	0.656	0.931	3074
Black Non-Hispanic	0.956	1.059	0.672	0.594	0.631	0.919	2900
White Non-Hispanic	0.622	0.379	0.404	0.203	0.237	0.478	16087
Native American	2.087	2.131	1.528	1.425	1.761	2.924	308
SOCIOECONOMIC STATUS							
Lowest Quartile	0.620	0.670	0.573	0.312	0.438	0.760	5761
Quartile 2	0.759	0.641	0.544	0.314	0.422	0.714	5654
Quartile 3	0.903	0.602	0.557	0.366	0.411	0.648	5729
Highest Quartile	0.849	0.534	0.608	0.350	0.310	0.635	6932
GRADE COMPOSITE							
Lowest Quartile	0.508	0.662	0.590	0.322	0.430	0.742	5637
Quartile 2	0.721	0.694	0.615	0.371	0.476	0.691	5154
Quartile 3	0.787	0.600	0.573	0.397	0.430	0.675	6006
Highest Quartile	0.866	0.435	0.479	0.277	0.286	0.587	7015
TEST COMPOSITE							
Lowest Quartile	0.539	0.683	0.534	0.327	0.512	0.778	5427
Quartile 2	0.749	0.718	0.602	0.372	0.454	0.766	5508
Quartile 3	0.874	0.590	0.573	0.388	0.371	0.693	5900
Highest Quartile	0.888	0.430	0.561	0.316	0.286	0.555	6433
SELF CONCEPT							
Lowest Quartile	0.676	0.607	0.581	0.346	0.425	0.755	5999
Quartile 2	0.764	0.539	0.514	0.317	0.370	0.704	6730
Quartile 3	0.794	0.626	0.623	0.345	0.408	0.685	5586
Highest Quartile	0.854	0.649	0.510	0.383	0.424	0.631	5723

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 4.4--Standard errors for percentages of 1988 eighth graders planning to enroll in various high school programs, by selected courses taken in eighth grade

	College Prep/ Academic	Voc/ Tech/ Business	General H.S. Program	Other Specialized Program	Other	Don't Know	Unweighted n
TOTAL	0.519	0.345	0.327	0.189	0.214	0.408	24081
MATH COURSES							
Alg/Alg & Reg Math	0.917	0.485	0.443	0.324	0.306	0.580	7984
Reg. Math Only	0.549	0.431	0.447	0.236	0.288	0.496	12955
Remedial/Rem. & Reg.	1.187	1.310	1.251	0.875	0.990	1.547	1173
ENGLISH COURSES							
Regular English	0.583	0.371	0.368	0.214	0.230	0.445	19108
Rem./Rem. & Reg. English	1.019	0.874	0.739	0.448	0.581	0.946	2898
SCIENCE COURSES							
Sci. With Lab	0.844	0.628	0.699	0.425	0.454	0.687	4788
Sci. Without Lab	0.612	0.401	0.380	0.203	0.257	0.480	15480
FOREIGN LANGUAGE							
Attend	0.972	0.655	0.683	0.380	0.372	0.747	6317

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 4.5.--Standard errors for percentage of eighth graders who never discussed high school programs with various adults, by expected high school program

Expected High School Program		Never Discussed with			
		Mother	Father	Teacher	Counselor
TOTAL		0.297	0.408	0.574	0.735
	unwt n	24075	23795	23314	23152
College Preparatory		0.311	0.524	0.923	1.046
	unwt n	7251	7211	7105	7047
Vocational, Technical Business Career		0.508	0.826	0.911	1.075
	unwt n	4114	4028	3950	3915
General High School		0.676	0.910	1.148	1.220
	unwt n	3348	3316	3249	3224
Specialized Programs		0.889	1.458	1.632	1.695
	unwt n	1310	1291	1270	1273
Other		0.868	1.205	1.390	1.379
	unwt n	1888	1869	1831	1820
Don't Know		0.654	0.756	0.794	0.800
	unwt n	5941	5865	5701	5671

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 4.6.--Standard errors for percentages of eighth graders aspiring to various occupations, by selected student characteristics

	Crafts-person/ Operat.	Farmer/ Farm Manager	House-wife/ Home-maker	Laborer /Farm worker	Milit./ Police/ Secur. Officer	Profes-sional/ Busnss. /Manag.	Busnss. Owner	Techni-cal	Sales-person/ Cler./ Office	Science /Engin-eering Prfsnl.	Service worker	Other	won't Be Working	Don't Know	Un-weighted n
TOTAL	0.158	0.084	0.117	0.058	0.242	0.380	0.190	0.178	0.125	0.182	0.162	0.310	0.036	0.247	23686
SEX															
Male	0.294	0.154	0.056	0.112	0.419	0.468	0.274	0.286	0.110	0.308	0.151	0.410	0.059	0.341	11681
Female	0.098	0.056	0.224	0.035	0.216	0.547	0.246	0.201	0.218	0.181	0.281	0.409	0.041	0.335	12005
RACE															
Asian/Pacific Isl	0.645	0.272	0.338	0.276	0.938	1.580	0.823	0.797	0.495	1.004	0.480	1.164	0.000	0.968	1490
Hispanic	0.461	0.223	0.391	0.195	0.742	0.961	0.603	0.468	0.409	0.521	0.397	0.937	0.100	0.666	3018
Black Non-Hispanic	0.379	0.076	0.176	0.156	0.680	0.873	0.515	0.549	0.357	0.427	0.513	0.841	0.149	0.660	2814
White Non-Hispanic	0.190	0.110	0.145	0.067	0.269	0.458	0.223	0.205	0.148	0.219	0.200	0.369	0.041	0.295	15866
Native American	2.111	0.343	1.145	0.177	2.308	3.589	1.355	1.782	0.866	1.796	1.139	2.460	0.123	1.836	301
PARENTS' EDUCATION															
LT High Sch. Grad	0.590	0.246	0.461	0.221	0.738	0.878	0.588	0.564	0.468	0.334	0.580	0.813	0.159	0.914	2388
H.S. Graduate/GED	0.394	0.182	0.274	0.182	0.551	0.684	0.390	0.401	0.293	0.307	0.396	0.650	0.076	0.555	4414
Some College	0.229	0.141	0.167	0.074	0.363	0.564	0.277	0.296	0.182	0.265	0.247	0.493	0.040	0.352	9237
College Graduate	0.263	0.182	0.238	0.104	0.495	1.027	0.494	0.476	0.271	0.553	0.328	0.702	0.088	0.543	3572
Advanced Degree	0.205	0.150	0.288	0.112	0.521	1.056	0.471	0.443	0.233	0.636	0.333	0.770	0.122	0.448	3598
EXPECTED H.S. PGM.															
Coll Prep/Academic	0.173	0.106	0.143	0.079	0.385	0.757	0.314	0.346	0.176	0.480	0.231	0.467	0.047	0.286	7157
Voc./Tech./Bus.	0.487	0.205	0.200	0.146	0.587	0.806	0.515	0.579	0.397	0.296	0.425	0.542	0.075	0.434	4005
General HS Program	0.397	0.197	0.436	0.242	0.624	0.891	0.500	0.382	0.345	0.357	0.457	0.820	0.114	0.632	3287
Specialized H.S.	0.529	0.198	0.471	0.213	0.894	1.277	0.816	0.674	0.304	0.494	0.698	1.685	0.153	0.718	1282
Other	0.627	0.318	0.386	0.171	0.895	1.062	0.529	0.524	0.273	0.562	0.631	1.175	0.112	0.586	1844
Don't Know	0.327	0.167	0.247	0.106	0.422	0.556	0.336	0.381	0.249	0.253	0.363	0.580	0.092	0.615	5816

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 4.7--Standard errors for percentages of eighth graders aspiring to various education levels, by selected student characteristics

	Won't Finish High School	Will Finish High School	Vocat./Trade/ School After H.S.	Will Attend College	Will Finish College	Will Attend Graduate School	Un-weighted n
TOTAL	0.094	0.294	0.253	0.263	0.405	0.385	24384
SEX							
Male	0.144	0.413	0.342	0.365	0.550	0.472	12113
Female	0.109	0.335	0.332	0.367	0.551	0.510	12271
RACE							
Asian/Pacific Isl.	0.446	0.887	0.718	1.096	1.583	1.802	1534
Hispanic	0.356	0.811	0.696	0.784	0.870	0.846	3125
Black Non-Hispanic	0.245	0.567	0.625	0.785	1.041	0.881	2962
White Non-Hispanic	0.105	0.352	0.297	0.292	0.491	0.453	16240
Native American	1.066	1.970	1.989	1.881	2.849	2.487	310
SES QUARTILE							
Lowest Quartile	0.283	0.666	0.568	0.535	0.694	0.490	5858
25 - 49%	0.172	0.549	0.499	0.525	0.711	0.525	5725
50 - 74%	0.114	0.374	0.400	0.505	0.695	0.615	5794
Highest Quartile	0.091	0.198	0.255	0.346	0.753	0.776	6998
GRADES							
Lowest Quartile	0.291	0.671	0.556	0.574	0.713	0.410	5742
25 - 49%	0.144	0.520	0.538	0.626	0.781	0.583	5219
50 - 74%	0.109	0.377	0.422	0.488	0.758	0.631	6066
Highest Quartile	0.077	0.216	0.269	0.351	0.721	0.747	7070
TEST							
Lowest Quartile	0.291	0.682	0.536	0.580	0.686	0.492	5559
25 - 49%	0.157	0.503	0.532	0.533	0.739	0.512	5572
50 - 74%	0.090	0.403	0.416	0.489	0.704	0.619	5949
Highest Quartile	0.077	0.190	0.272	0.343	0.789	0.794	6473
EXPECTED H.S. PROGRAM							
College Preparatory	0.085	0.186	0.218	0.377	0.756	0.781	7295
Voc./Tech./Bus.	0.192	0.576	0.834	0.625	0.900	0.640	4157
General	0.232	0.828	0.620	0.703	1.068	0.794	3365
Specialized	0.254	0.903	0.780	1.016	1.508	1.174	1317
Other	0.363	0.809	0.682	0.934	1.287	0.985	1901
Don't Know	0.238	0.666	0.405	0.578	0.765	0.517	6013

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 4.8.--Standard errors for percentages of eighth graders who cite various probabilities for graduating from high school, by selected background characteristics

	Very Sure	Probably Will	Probably Won't	Won't Graduate	Unweighted n
TOTAL	0.317	0.289	0.074	0.064	24332
RACE					
Asian/Pacific Isl.	1.389	1.330	0.284	0.221	1526
Hispanic	1.114	0.985	0.287	0.258	3119
Black Non-Hispanic	0.803	0.747	0.209	0.167	2943
White Non-Hispanic	0.347	0.317	0.083	0.071	16227
Native American	2.407	2.227	0.981	0.996	309
PARENTS' EDUCATION					
LT H.S. Graduate	1.116	0.999	0.377	0.370	2487
H.S. Graduate/GED	0.647	0.610	0.161	0.159	4574
Some College	0.423	0.410	0.098	0.074	9482
College Graduate	0.600	0.588	0.120	0.096	3628
Advanced Degree	0.549	0.532	0.143	0.067	3666
SOCIOECONOMIC STATUS					
Lowest Quartile	0.692	0.628	0.214	0.199	5635
Quartile 2	0.551	0.527	0.141	0.120	5717
Quartile 3	0.530	0.525	0.104	0.070	5782
Highest Quartile	0.406	0.398	0.084	0.060	6991
YEARLY FAMILY INCOME					
Under $15,000	0.768	0.694	0.223	0.223	4336
$15,000-$24,999	0.719	0.679	0.207	0.149	3779
$25,000-$34,999	0.622	0.603	0.136	0.128	3780
$35,000-$49,999	0.560	0.548	0.124	0.097	4276
$50,000 or More	0.496	0.469	0.100	0.066	5209
OLDER SIBLING H.S. DROP-OUTS					
None	0.406	0.385	0.095	0.074	11042
1	1.301	1.215	0.451	0.427	1333
2	2.329	2.070	0.975	0.914	421
3	3.721	3.578	1.577	0.000	174
4	5.553	5.126	1.920	3.132	88
5	7.364	7.044	2.655	2.287	46
6 or More	7.223	7.059	2.130	0.000	41

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC TABLE 4.8.--Standard errors for percentages of eighth graders who cite various probabilities for graduating from high school, by selected background characteristics--Continued

	Very Sure	Probably Will	Probably Won't	Won't Graduate	Unweighted n
TOTAL	0.317	0.289	0.074	0.064	24332
REPEATED A GRADE?					
Yes	0.807	0.765	0.283	0.237	3871
No	0.302	0.285	0.061	0.050	18835
SCHOOL DAYS MISSED					
None	0.396	0.380	0.075	0.068	10739
1 or 2 Days	0.505	0.494	0.100	0.074	7647
3 or 4 Days	0.837	0.791	0.286	0.230	2962
5 to 10 Days	1.387	1.307	0.464	0.406	1233
More Than 10 Days	2.541	2.293	0.954	1.058	511
TIMES LATE FOR SCHOOL					
None	0.347	0.330	0.076	0.054	14521
1 or 2 Days	0.586	0.555	0.146	0.129	5996
3 or 4 Days	1.174	1.140	0.377	0.347	1790
5 to 10 Days	2.123	1.892	0.874	0.728	597
More Than 10 Days	2.863	2.484	0.937	1.258	394

SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

CDC Table 4.9.--Standard errors for percentage of eighth graders with various educational problems, by number of risk factors

		Lowest Test Composite Quartile	Lowest Grades Composite Quartile	Absent More Than 3 Days	Doesn't Expect to Graduate HS
TOTAL		0.600	0.428	0.356	0.093
	unwt n	23697	24292	23204	24384
NO RISK		0.494	0.457	0.392	0.078
	unwt n	12852	13202	12802	13219
ONE RISK		0.859	0.726	0.631	0.158
	unwt n	6189	6316	5985	6360
2 OR MORE RISKS		1.064	0.891	0.825	0.325
	unwt n	4656	4774	4417	4805

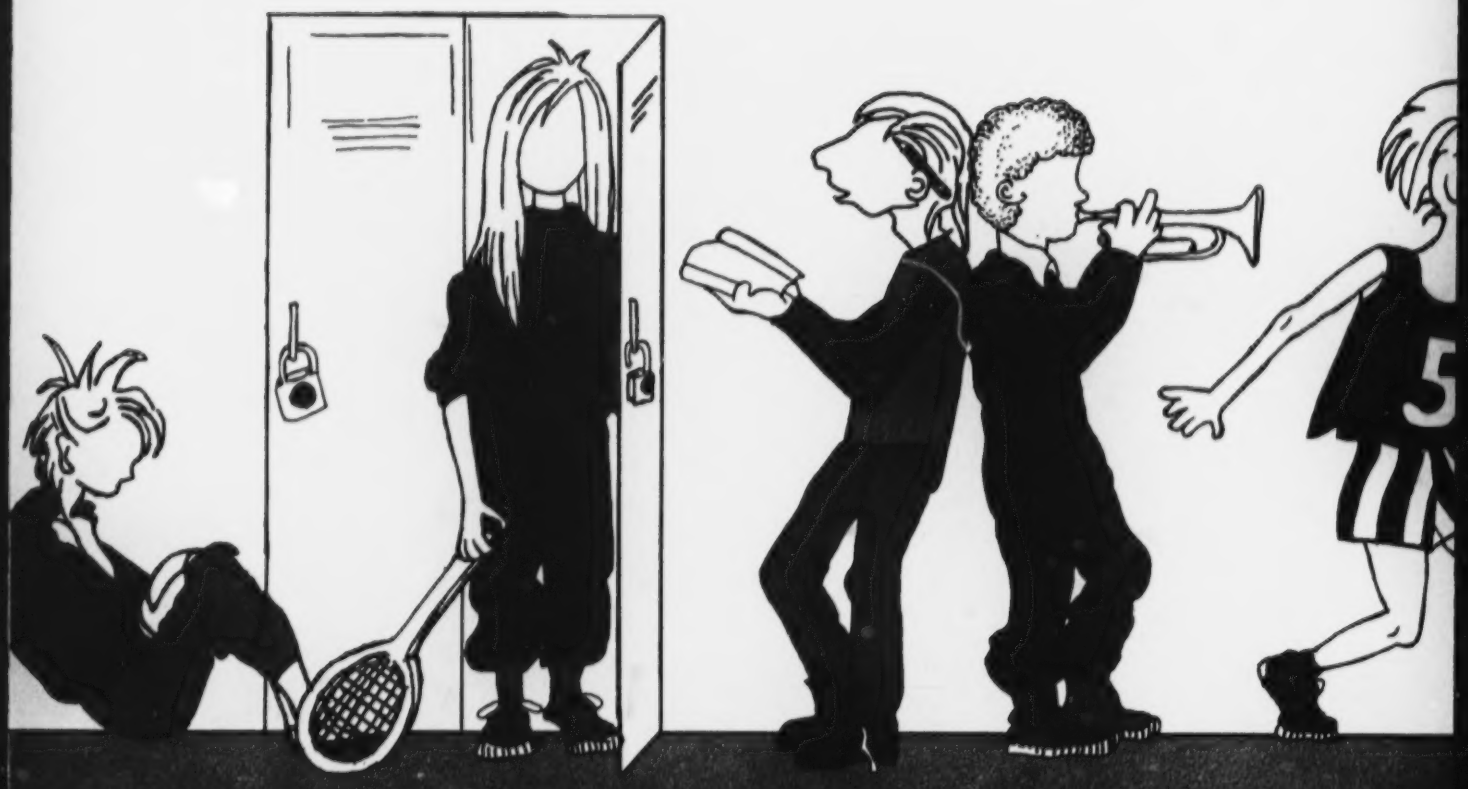
SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Education Longitudinal Study of 1988: Base Year Student Survey".

United States
Department of Education
Washington, D.C. 20208–5574

Official Business
Penalty for Private Use, $300

Postage and Fees Paid
U.S. Department of Education
Permit No. G-17

Fourth Class
Book Rate



NATIONAL CENTER FOR EDUCATION STATISTICS

Announcement

July 1990

New Study, *NELS:88, A Profile of the American Eighth Grader* Released

Contact:
Anne Hafner
(202) 357–6767

An eighth grader is 13 or 14, right? Maybe. The National Center for Education Statistics of the U.S. Department of Education's Office of Educational Research and Improvement recently conducted a survey of 25,000 eighth graders in public and private schools throughout the country—the National Education Longitudinal Study of 1988 (NELS:88). The spring 1988 survey also included the students' parents, teachers, and principals.

The report on this survey, *NELS:88, A Profile of the American Eighth Grader*, has just been released. This 170-page report, the first of many, provides base-year information about 1988 eighth graders. Followup surveys will be conducted every 2 years.

While more than 60 percent of 1988 eighth graders were born in 1974, another 30 percent were born in 1973, and 6 percent were born in 1972 or before. The students' ages tied in with whether they had repeated a grade—and 18 percent had repeated at least one grade by the time they finished eighth grade. Only 1 percent of 13- and 14-year-olds had repeated a grade. On the other hand, 43 percent of 15-year-olds and 87 percent of students 16 and over had repeated a grade.

About 70 percent of the students were white, 13 percent were black, 10 percent were Hispanic, 4 percent were Asian or Pacific Islander, and 1 percent were American Indian or Alaskan Native. About 2 percent were considered to possess limited English proficiency. About 88 percent were in public schools, 8 percent in Catholic schools, and 5 percent in other private schools.

Longitudinal studies such as this are powerful vehicles for examining student risk issues. Since this is the first longitudinal study to begin in eighth grade, the followups every 2 years will give an unparalleled opportunity to see who drops out and who stays in school. This survey has identified six primary risk factors for dropping out:

- 22 percent—single parent family
- 21 percent—family income less than $15,000
- 14 percent—home alone for more than 3 hours a day
- 11 percent—parents have no high school diploma
- 10 percent—sibling dropped out
- 2 percent—limited English proficiency

Overall, a little more than half of the students have no risk factors, a quarter have one risk factor, and 20 percent have two or more.

Students with two or more risk factors are twice as likely as those with no risk factors to be in the lowest grade quartile (38 percent vs. 18 percent) and lowest test quartile (44 percent vs. 16 percent).

One other interesting note: more than a quarter of the eighth-grade students report they are home alone after school for 2 or more hours. And students in the top quarter socioeconomic status (based on income, education, and other factors) are almost twice as likely to come home to an empty home as those in the bottom quarter.

Copies of the survey report, *NELS:88, A Profile of the American Eighth Grade Student*, will be available soon from the Government Printing Office. The price is $9.00. For more information, call the GPO Superintendent of Documents Order Desk at 202–783–3238 and ask for information about stock number 065–000–00404–6.

U.S. Department of Education
Office of Educational Research and Improvement **NCES 90-458a**

Superintendent of Documents Publications Order Form

Order Processing Code
* 6867

Charge your order. It's easy!

To fax your orders and inquiries – (202) 275-0019

☐ **YES,** please send me the following indicated publications:

_____ copy(ies) of *NELS:88, A Profile of the American Eighth Grade Student* at $9.00 each (stock number 065–000–00404–6).

☐ Please send me your **Free Catalog** of hundreds of bestselling Government books.

The total cost of my order is $_____. (International customers please add 25%.) Prices include regular domestic postage and handling and are good through 1/91. After this date, please call Order and Information Desk at 202-783-3238 to verify prices.

_____
(Company or personal name) (Please type or print)

_____
(Additional address/attention line)

_____
(Street address)

_____
(City, State, ZIP Code)

(_____)
(Daytime phone including area code)

Please Choose Method of Payment:

☐ Check payable to the Superintendent of Documents

☐ GPO Deposit Account ☐☐☐☐☐☐☐☐-☐

☐ VISA or MasterCard Account

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

_____
(Credit card expiration date)

Thank you for your order!

_____
(Signature)

7/90

Mail To: Superintendent of Documents, Government Printing Office, Washington, DC 20402-9325